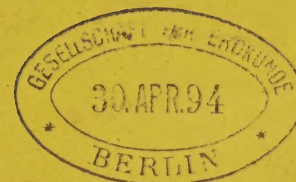


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CHINA.



IMPERIAL MARITIME CUSTOMS.

III.—MISCELLANEOUS SERIES: No. 6.

LIST OF THE CHINESE
LIGHTHOUSES, LIGHT-VESSELS, BUOYS,
AND BEACONS

FOR

1894.

(Corrected to 1st December 1893.)

TWENTY-SECOND ISSUE.

PUBLISHED BY ORDER OF

The Inspector General of Customs.

SHANGHAI:

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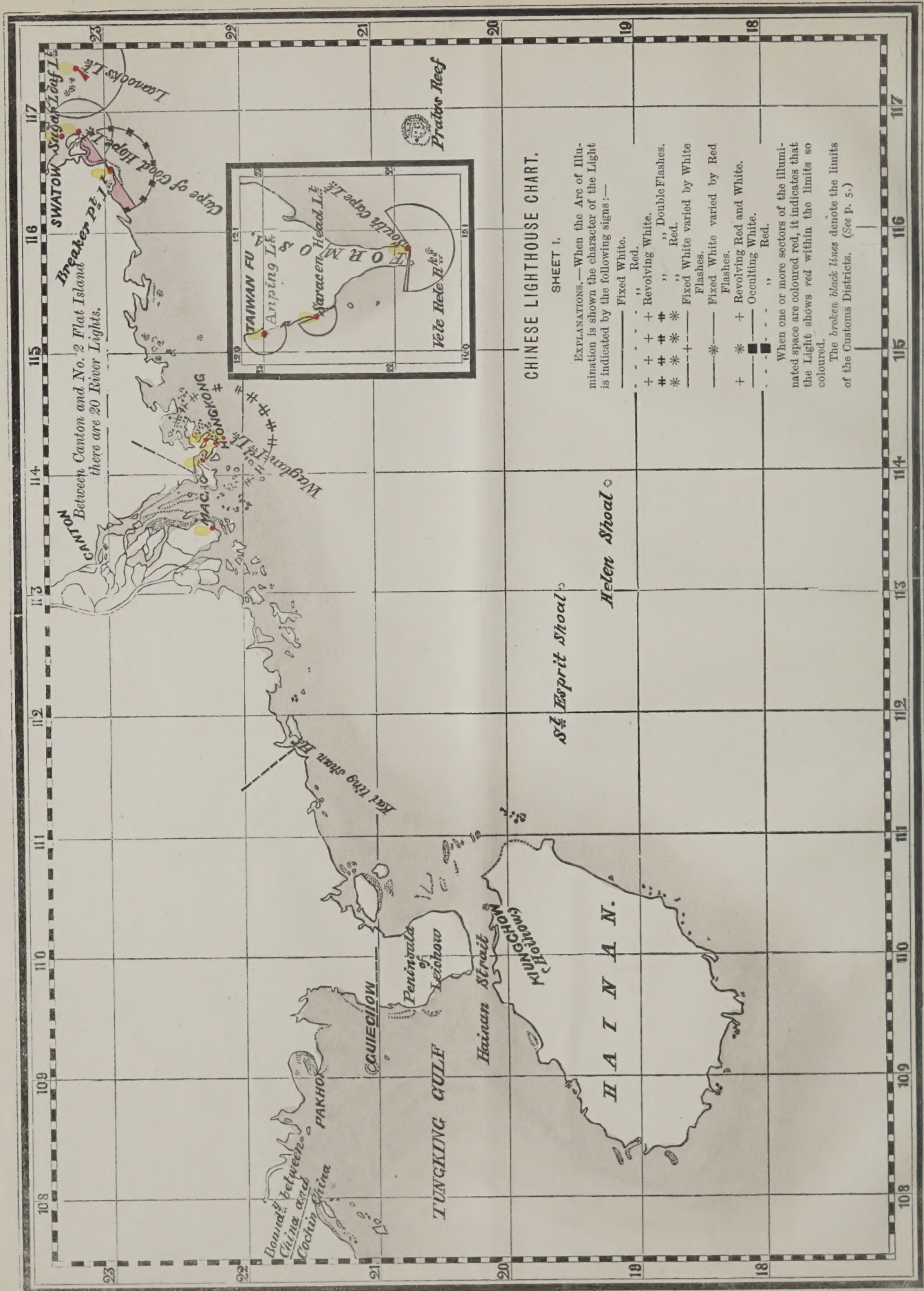
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CHINESE LIGHTHOUSE CHART.


SHEET 1.

EXPLANATIONS.—When the Arc of Illumination is shown the character of the Light is indicated by the following signs:—

- Fixed White.
- Red.
- Revolving White.
- Double Flashes.
- Red.
- White varied by White Flashes.
- Fixed White varied by Red Flashes.
- Revolving Red and White.
- Occulting White.
- Red.

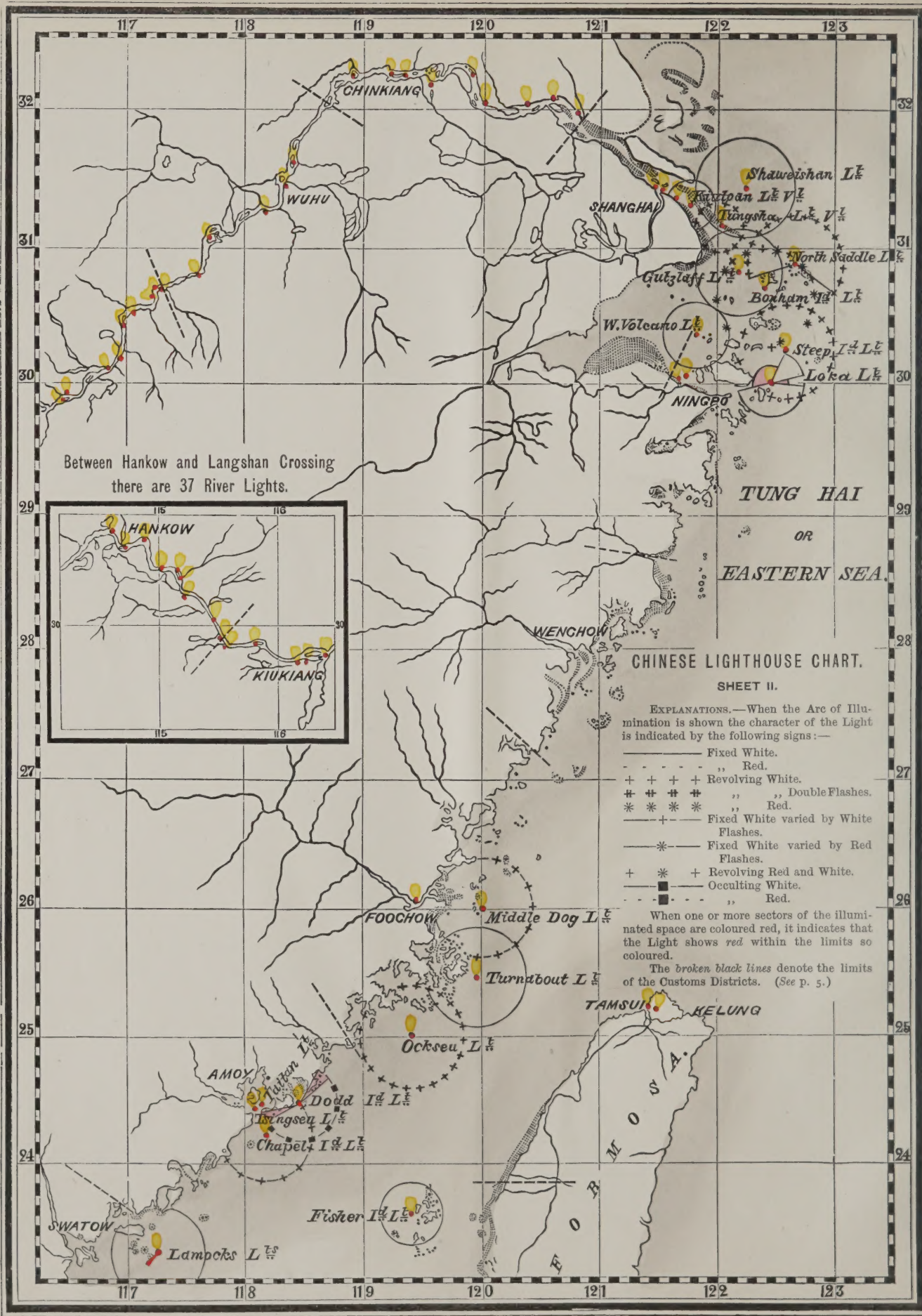
When one or more sectors of the illuminated space are coloured red, it indicates that the Light shows red within the limits so coloured.

The broken black lines denote the limits of the Customs Districts. (See p. 5.)

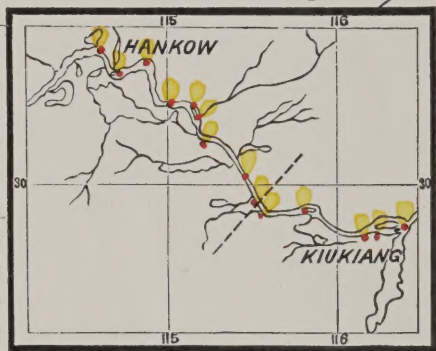


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Between Hankow and Langshan Crossing
there are 37 River Lights.



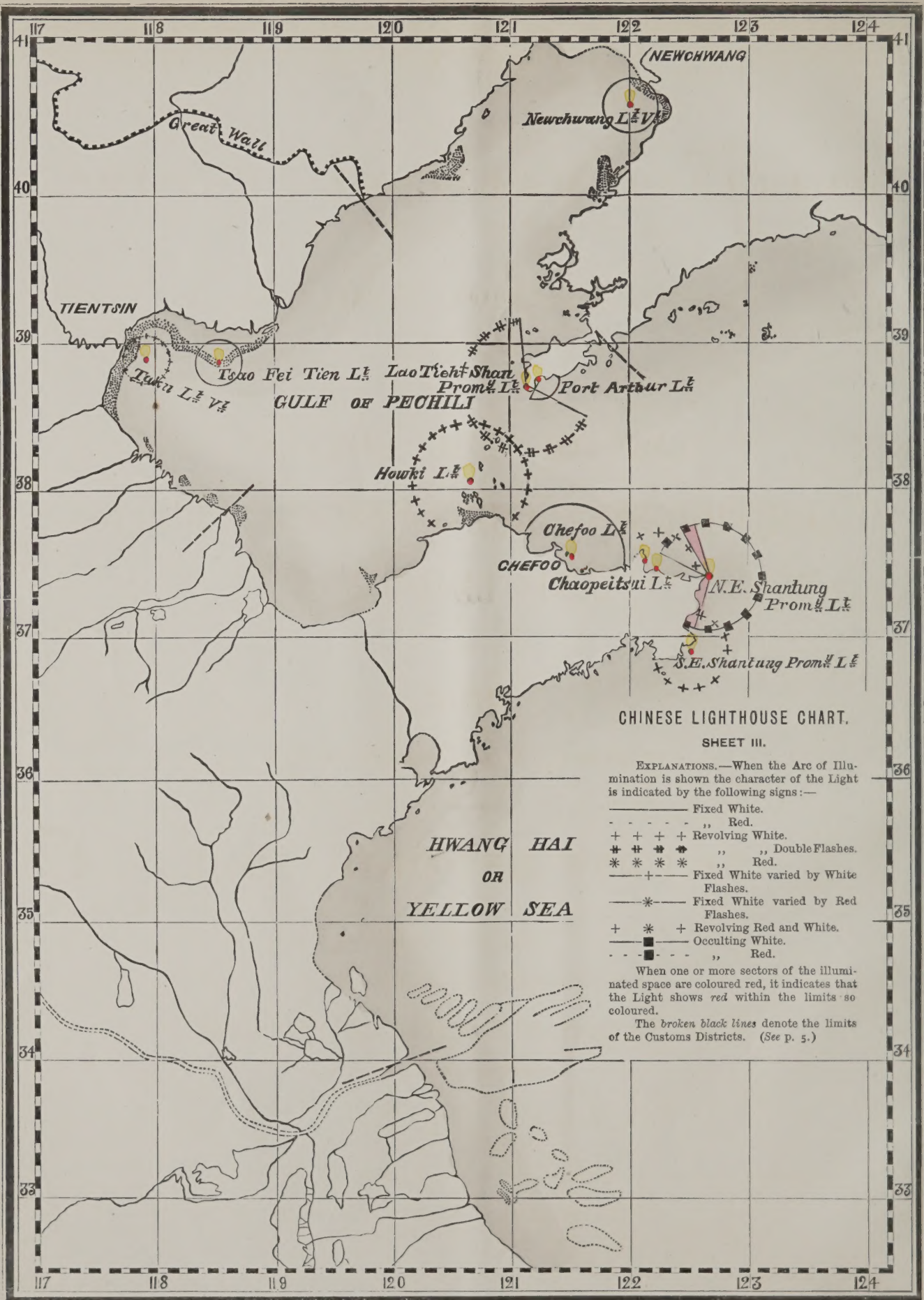
CHINESE LIGHTHOUSE CHART. SHEET II.

EXPLANATIONS.—When the Arc of Illumination is shown the character of the Light is indicated by the following signs:—

- Fixed White.
- Red.
- + + + + Revolving White.
- # # # # " " Double Flashes.
- * * * * " " Red.
- + — Fixed White varied by White Flashes.
- * — Fixed White varied by Red Flashes.
- + * + Revolving Red and White.
- ■ — Occulting White.
- - - - " " Red.

When one or more sectors of the illuminated space are coloured red, it indicates that the Light shows red within the limits so coloured.

The broken black lines denote the limits of the Customs Districts. (See p. 5.)



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SUMMARY OF LIGHTS, BUOYS, AND BEACONS IN CHINESE WATERS.

CUSTOMS DISTRICT.	LIGHTS.	LIGHT-VESSELS.	BUOYS.	BEACONS.	TOTAL.
Pakhoi .....	...	...	3	...	3
Kiungchow .....	...	...	4	...	4
Canton	23	...	7	7	37
Swatow	5	...	4	1	10
Amoy	4	...	8	16	28
Tainan	4	...	...	...	4
Tamsui	2	...	5	1	8
Foochow	4	...	11	4	19
Wenchow .....	...	...	...	7	7
Ningpo	3	...	2	4	9
Shanghai	13	2	28	10	53
Chinkiang	11	...	1	...	12
Wuhu .....	...	...	...	...	...
Kiukiang	16	...	...	1	17
Hankow	14	...	9	4	27
Ichang .....	...	...	...	...	...
Chefoo	8	...	...	1	9
Tientsin	1	1	4	6	12
Newchwang .....	...	1	3	5	9
TOTAL	108	4	89	67	268

ABBREVIATIONS AND EXPLANATIONS.

LIGHTS.

- F. Fixed ; only a fixed or steady light being visible.
- F. & Fl. Fixed and Flashing ; a fixed light being always visible, which is intensified by flashes at the intervals stated.
- Rev. Revolving ; the light gradually increases to full effect and then gradually decreases to total eclipse at the intervals given, which are from centre to centre of the maximum brilliancy.
- Occ. Occulting ; when, for the periods stated, a fixed or steady light is shown, followed by a more or less sudden eclipse.
- Gp. Fl. Group flashing ; showing groups of two or more flashes in succession, separated by eclipses.
-

ILLUMINATING APPARATUS.

- C. Catoptric, or by metallic reflectors.
- D. Dioptric, or by lenses and prisms.
- Ord. Order, or class of apparatus, numbered from the first (or most powerful) to the eighth order.
-

The bearings are magnetic, and are given from seaward.

The given distances, from which the lights should be visible in clear weather, are calculated for an observer at a height of 15 feet above the sea ; the elevation of the lights being in all cases taken as above high water.

In several cases, however, when the light is not powerful enough to carry to the distance calculated from its height, a reduced range has been given.

The coloured lights are specially noted in *italics* in the column for remarks, all others being white.

The lights are exhibited from sunset to sunrise.

Longitude is given in degrees, minutes, and seconds east of Greenwich. The miles given are nautical miles, or minutes of latitude. Except in certain specified cases, the positions given are only approximate ones.

The light-vessels and lighthouses are provided with both Codes of Signals, but it is advisable to use the Commercial Code.

Banks of rivers are spoken of geographically, *i.e.*, as *right* or *left* to a person facing *down* the stream.

* * * Should Pilots or Commanding Officers of vessels detect or suspect that any movable mark has changed from its latest advertised position, they are requested to report such change without delay to the Harbour Master of the district concerned.

LIMITS OF CUSTOMS DISTRICTS.

The Pakhoi Customs District includes the coast line of China from the Tonkin frontier to Waichow (Guiechow) Island.

The Kiungchow (Hoihow) Customs District includes the Hainan coast, and from Waichow (Guiechow) Island to Hai-ling-shan.

The Canton Customs District extends (for matters affecting the Marine Department) from Hai-ling-shan, $111^{\circ} 45'$ E. longitude, to 114° E. longitude.

The Swatow Customs District includes that part of the coast which is situated between Mirs Point and the Lamocks.

The Amoy Customs District extends from the Lamocks north to Chinchew, inclusive.

The Tainan (Takow) Customs District comprises the south and southern half of the west coast of Formosa.

The Tamsui Customs District comprises the north and northern half of the west coast of Formosa.

The Foochow Customs District extends from Chinchew north to Namkwan.

The Wenchow Customs District includes the coast from Namkwan to T'aichow.

The Ningpo Customs District extends from T'aichow north to Hangchow Bay.

The Shanghai Customs District extends from Hangchow Bay along the coast as far as the old mouth of the Yellow River, latitude 34° N., and up the Yangtze to the Langshan Crossing.

The Chinkiang Customs District comprises the Yangtze from the Langshan Crossing to Nanking.

The Wuhu Customs District includes the river from Nanking to Nganking.

The Kiukiang Customs District comprises the river from Nganking to the gorge west of Kiukiang.

The Hankow Customs District extends from the gorge west of Kiukiang to Yochow, at the mouth of the Tungting Lake.

The Ichang Customs District extends from the Tungting Lake to the gorge above Ichang.

The Chefoo Customs District includes the coast line from the old mouth of the Yellow River to the Ta-tsin-ho.

The Tientsin Customs District extends from the Ta-tsin-ho to the Shan-hai-kwan.

The Newchwang Customs District extends from the Shan-hai-kwan to Newchwang and from Newchwang south to Ta-lien-wan.

* * * *The Limits of the Customs Districts are shown approximately on the Charts at the beginning of this volume by broken lines cutting the Coast or the Yangtze River.*

SYSTEM OF COLOURING BUOYS AND BEACONS IN CHINESE WATERS.

BUOYS.

No.	COLOUR OF BUOY.	DIRECTIONS AND EXPLANATIONS.
1	Red	Entering the channel from seaward, <i>red</i> buoys will be found on the <i>starboard</i> side of the channel, and must be left on the <i>starboard</i> hand by vessels passing in.
2	Black	Entering the channel from seaward, <i>black</i> buoys will be found on the <i>port</i> side of the channel, and must be left on the <i>port</i> hand by vessels passing in.
3	Red and black horizontal bands.	Buoys painted in <i>red</i> and <i>black horizontal bands</i> will be found in the fairway, and should be passed close-to.
4	Red and black vertical stripes.	Buoys painted in <i>red</i> and <i>black vertical stripes</i> will be found on the ends of spits, and the outer and inner extremes of banks, shoals, or extensive reefs, where there is a navigable channel on either side of such spit, bank, shoal, or reef. Vessels should never attempt to pass between a buoy thus painted and the danger which it marks.
5	Red and black chequers	Buoys painted in <i>red</i> and <i>black chequers</i> will be used to mark rocks in the open sea, also to mark obstructions of small extent having channels on either side of them. When used for the latter purpose they will be placed to seaward of the danger. Vessels should never attempt to pass between a buoy thus painted and the danger which it marks.
6	Red and white chequers	When <i>two chequered buoys</i> of these colours are used to mark an obstruction, the <i>red</i> and <i>white</i> one is to mark the <i>starboard</i> side of the channel, and must be left on the <i>starboard</i> hand by vessels passing in; and the <i>black</i> and <i>white</i> one is to mark the <i>port</i> side of the channel, and must be left on the <i>port</i> hand by vessels passing in.
7	Black and white chequers	
8	Wreck buoys	Wrecks will in all cases be marked by <i>green</i> buoys, having the word WRECK painted on them in <i>white</i> letters, and when a wreck lies in the open sea or in a position where there is a navigable channel with plenty of room on either side of it, the buoy will carry no other distinguishing mark, and will in every such case be placed to seaward of the wreck. Wreck buoys marked with an <i>even</i> number must be left on the <i>starboard</i> hand by vessels entering from the sea. Wreck buoys marked with an <i>odd</i> number must be left on the <i>port</i> hand by vessels entering from the sea. The numbers on wreck buoys will be painted in <i>white</i> , and placed above the word WRECK.

Note.—All other distinguishing marks to buoys will be in addition to the foregoing, and where such are employed, a particular description of the same will in each case be given in the published List.

Each buoy will have an iron plate fastened on its outside, in some convenient place above the water-line, with the name of its district and station as given in the published List stamped thereon in English and Chinese, to insure its identification if found adrift.

BEACONS.

No.	COLOUR OF BEACON.	DIRECTIONS AND EXPLANATIONS.
1	Red	Entering the channel from seaward, <i>red</i> beacons will be found on the <i>starboard</i> side of the channel, and must be left on the <i>starboard</i> hand by vessels passing in.
2	Black	Entering the channel from seaward, <i>black</i> beacons will be found on the <i>port</i> side of the channel, and must be left on the <i>port</i> hand by vessels passing in.
3	Red and black vertical stripes.	Beacons painted in <i>red</i> and <i>black vertical stripes</i> will be used to mark spits and the outer and inner extremities of banks, shoals, or extensive reefs, where there is a navigable channel on either side of such spit, bank, shoal, or reef.
4	Red and black chequers	Beacons painted in <i>red</i> and <i>black chequers</i> will be used to mark rocks in the open sea, also to mark rocks of small extent having channels on either side of them.
5	Red and white chequers	<p>When two <i>chequered beacons</i> of these colours are used to mark a rock or reef, the <i>red</i> and <i>white</i> one is to mark the <i>starboard</i> side of the channel, and must be left on the <i>starboard</i> hand by vessels passing in; and the <i>black</i> and <i>white</i> one is to mark the <i>port</i> side of the channel, and must be left on the <i>port</i> hand by vessels passing in.</p> <p><i>Note.</i>—It is to be understood that the above rules for painting beacons apply in each case to the body of the structure. When a beacon which is painted a single colour, either black or red, is surmounted by a distinguishing mark, such mark may be painted the same colour as the body of the beacon or with that colour and white combined, or white alone.</p> <p>When the body of a beacon is painted in two colours, the same colours only may be used to paint the mark by which it is surmounted. Whenever a distinguishing mark is used, a particular description of it will be given in the published List.</p>
6	Black and white chequers	
	Various	Beacons on shore, to enable bearings to be taken or to give lines of direction for crossing bars or entering rivers, harbours, etc., will be painted so as to make them as conspicuous as possible. Red, black, and white will be the only colours used, and a particular description of such marks will be given in the published List.

LIGHTS.

No.	District.	Name of Light.	Location.	Latitude N.	Longitude E.	Fixed, Fixed & Flashing, Re- volving, Occulting.	Intervals between the Flashes.	Miles seen in clear Wea- ther.
1, 2	Canton	Dutch Folly North Beacons.	On the rocks near Dutch Folly Island.	.....	.....	F.	.....	2
3	do.	Dutch Folly South Beacon.	do. do.	.....	.....	F.	.....	1
4, 5	do.	Whampoa Barrier	Whampoa Channel, at the upper end of Whampoa Island.	.....	.....	.....	.....	.....
6-9	do.	Cambridge Reach Bar- rier.	Cambridge Reach, Whampoa Chan- nel.	.....	.....	.....	.....	1
10	do.	Taimei Beacon	On the end of sandspit making out from 49th Point, Marines Island, Blenheim Passage.	.....	.....	.....	.....	1
11, 12	do.	Taishek Barrier Bea- cons.	Blenheim Passage .....	.....	.....	.....	.....	1
13, 14	do.	High Island Barrier...	Immediately below High Island, Blenheim Passage.	.....	.....	.....	.....	.....
15-18	do.	Bridge Barrier	Collinson Reach, Blenheim Passage	.....	.....	.....	.....	1
19-22	do.	Collinson Reach Bar- rier.	do. do.	.....	.....	.....	.....	1
23	do.	Waglan Island.....	Summit of island	22° 11' 18"	114° 18' 1"	Gp. Fl.	½ minute	22
24	Swatow.....	Breaker Point	On the point	*22° 56' 24".5	*116° 29' 43".8	Occ.	8 seconds light and 2 seconds eclipse.	19

* Geographical position furnished by Lieut. PHARE, R.N., H.B.M.S. *Rambler*.

LIGHTS.

Colour, or any Peculiarity of Light-tower.	Height in Feet of Centre of Light above HW	Height in Feet of Building from Base to Vane.	Year lighted.	Character and Order of Illuminating Apparatus.	REMARKS.	No.
Round, granite beacons, painted red, and sur- mounted by a lantern.	15	26	1859	Unclassed ...	Two <i>red</i> lights on the north side of the channel, Dutch Folly Pass.	1, 2
Round, stone and brick beacon, painted black, and surmounted by a lantern.	10	22	1859	do. ...	A <i>green</i> light on the south side of the channel, Dutch Folly Pass.	3
Iron davits, painted red on the north side of passage and black on the south side.	.....	.....	.....	do. ...	A <i>red</i> light on the north side and a <i>green</i> light on the south side of the steamer passage through barrier.	4, 5
A red spar on the north side and a black spar on the south side of each passage.	.....	.....	1891	do. ...	Two passages through barrier—the southern for steamers the northern for junks, each having a <i>red</i> light on the starboard hand and a <i>green</i> light on the port hand, entering from sea.	6-9
Spar beacon, painted black, white, and black, and surmounted by a square frame.	21	27	1872	do. ...	A <i>white</i> light hoisted to bottom of frame	10
Spar beacons, each painted red, white, and red, and surmounted by a circular frame.	24	46	1872	do. ...	Two <i>red</i> lights hoisted on the beacons	11, 12
Iron davits, painted red on the north side of passage and black on the south side.	.....	.....	1891	do. ...	A <i>red</i> light on the north side and a <i>green</i> light on the south side of passage through barrier.	13, 14
do.	.....	.....	1891	do. ...	Two passages through barrier—the northern for steamers the southern for junks, each having a <i>red</i> light on the starboard hand and a <i>green</i> light on the port hand, entering from sea.	15- 18
do.	.....	.....	1891	do. ...		19- 22
Round, lower half white, upper half red. Lantern white.	225	52	1893	D. 1st Order	Showing double <i>white</i> flashes and visible in all directions except where obscured by land. The lightkeepers' dwellings, outhouses, and boundary wall are painted white. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, indicating the proximity of a vessel, will fire 2 guns with an interval of 15 seconds between them, and, if the vessel's fog signal—showing that she is under way—continues to be heard, will repeat the firing after an interval of 12 minutes. <i>Note.</i> —This light is in the Canton Customs District, but it is under the control of the Amoy Customs.	23
Round, black and white horizontal bands.	152½	120	1880	do.	<i>White</i> from S. 55° W. round by W. to N. 53° E., and <i>red</i> inshore of both these bearings as far as the land. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 2 guns with an interval of 10 seconds between them, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 10 minutes.	24

LIGHTS—Continued.

No.	District.	Name of Light.	Location.	Latitude N.	Longitude E.	Fixed, Fixed & Flashing, Re- volving, Occulting.	Intervals between the Flashes.	Miles seen in clear Wea- ther.
25	Swatow.....	Cape of Good Hope...	On the cape.....	*23° 14' 19".3	*116° 48' 24"	F. & Occ.	.....	15 white, 8 red.
26	do.	Sugar Loaf	On the eastern end of the summit of island.	23° 19' 54"	116° 45' 32"	F. & Fl.	½ minute	8
27	do.	Lamocks	Summit of High Island	*23° 15' 42".7	*117° 17' 4".5	F.	.....	22
28	do.	do.	Southern slope of High Island ....	.....	.....	F.	.....	8
29	Amoy.....	Chapel Island	Summit of island.....	*24° 9' 49".1	*118° 13' 30"	F. & Fl.	½ minute	22
30	do.	Tsingseu Island.....	On the northern slope of the island	*24° 21' 58".1	*118° 7' 26".3	F.	.....	15 white, 8 red.
31	do.	Taitan Island.....	On the island, near the northern entrance to Amoy Harbour.	*24° 23' 16".1	*118° 10' 0".6	Occ.	14 seconds light, 2 seconds eclipse, 2 seconds light, 2 seconds eclipse, and so on.	10
32	do.	Dodd Island	Summit of island.....	*24° 25' 43".9	*118° 30' 11".1	Occ.	26 secs. light and 4 seconds eclipse.	18

LIGHTS—Continued.

Colour, or any Peculiarity of Light-tower.	Height in Feet of Centre of Light above HW	Height in Feet of Building from Base to Vane.	Year lighted.	Character and Order of Illuminating Apparatus.	REMARKS.	No.
Round, white	171	22	1880	D. 4th Order	<i>Fixed red</i> from S. 32° E. to S. 10° E.; <i>fixed white</i> , eclipsed for about 3 seconds every minute, from S. 10° E. round by S. and W. to N. 8½° E.; and <i>fixed red</i> , eclipsed for about 3 seconds every minute, from N. 8½° E. till it is shut in by Ma-urh Point. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 2 guns with an interval of 1 minute between them, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 15 minutes.	25
Round, red	200	21½	1880	D. 6th Order	<i>Fixed white</i> varied by <i>red</i> flashes at ½-minute intervals; visible all round.	26
Round, black	241	54	1874	D. 1st Order	Visible all round. The lightkeepers' dwellings and boundary wall are painted white. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 3 guns with an interval of 2 minutes between the first and second and the second and third, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 12 minutes.	27
No tower.....	55	18	1874	D. 4th Order condensing.	Shows a beam of <i>red</i> light between N. 34½° E. and N. 50½° E., covering the White and Boat Rocks. Outside of this angle of 16° the light gradually wanes on each side of it for 4½°. In clear weather and when a vessel is close to the lighthouse, faint <i>red</i> light is visible beyond the angle of 24½°, between the bearings of N. 30½° E. and N. 54½° E. Exhibited from a window in a building painted white.	28
Round, black	227	63	1871	D. 1st Order	Visible all round. The lightkeepers' dwellings and boundary wall are painted white. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 2 guns with an interval of 3 minutes between them, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 10 minutes.	29
Octagonal, red and white vertical stripes.	130	33	1875	D. 4th Order	<i>Red</i> from N. 1° E. to N. 57° W.; <i>white</i> from N. 57° W. round by W. and S. to S. 50° E.; and <i>red</i> from S. 50° E. to S. 89° E. The lightkeepers' dwellings and boundary wall are painted white.	30
Iron hut, white.....	300	10½	1863 altd. 1888	D. 6th Order	Visible all round.....	31
Round, white.....	147	79	1882	D. 1st Order	<i>White</i> from S. 51° W. round by W. to N. 62° E.; <i>red</i> from N. 62° E. to N. 74° E.; <i>white</i> from N. 74° E. round by E. to S. 31° W.; and <i>red</i> from S. 31° W. to S. 51° W. The lightkeepers' dwellings and outhouses are painted white. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 2 guns with an interval of half a minute between them, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 15 minutes.	32

LIGHTS—Continued.

No.	District.	Name of Light.	Location.	Latitude N.	Longitude E.	Fixed, Fixed & Flashing, Re- volving, Occulting.	Intervals between the Flashes.	Miles seen in clear Wea- ther.
33	Tainan.....	South Cape.....	About 550 yards north from high water mark at the extreme south point of the South Cape, Formosa.	21° 55' 0"	120° 50' 38"	F.	.....	20
34	do.	Saracen Head	Front of flagstaff near the summit of Saracen Head, at the entrance to Tainan Harbour.	22° 36' 14"	120° 16' 0"	F.	.....	10
35	do.	Anping	About 340 yards N.W. by W. from the tree on the top of the mound in Fort Zelandia.	23° 0' 40"	120° 9' 45"	F.	.....	10
36	do.	Fisher Island	S.W. extremity of island.....	23° 32' 53"	119° 28' 5"	F.	.....	15
37	Tamsui	High Bar Light.....	Hill to north of the harbour, about 400 yards S. 86° E. from the Red Fort.	.....	.....	F.	.....	10
38	do.	Low Bar Light.....	Site of old white beacon, about 1,030 yards N. 86° W. from the Red Fort.	.....	.....	F.	.....	6
39	Foochow	Ockseu	Summit of High Island	*24° 59' 36".3	*119° 27' 7"	Rev.	1 minute	24
40	do.	Turnabout.....	Summit of island	*25° 26' 10".4	*119° 56' 6".8	F.	.....	23

* Geographical position furnished by Commander W. U. Moore, R.N., H.B.M.S. Rambler.

LIGHTS—Continued.

Colour, or any Peculiarity of Light-tower.	Height in Feet of Centre of Light above HW	Height in Feet of Building from Base to Vane.	Year. lighted.	Character and Order of Illuminating Apparatus.	REMARKS.	No.
Round, white	180	71½	1883	D. 1st Order	<i>White</i> from S. 54° 55' W. round by W. and N. to S. 85° E.; and <i>red</i> from S. 85° E. to S. 28° E. Between the bearings S. 54° 55' W. and S. 86° 28' W., the visibility of the light, owing to the height of the land to the eastward of the lighthouse, will depend upon the distance of the observer from it. With the light bearing S. 54° 55' W., a vessel will need to be between 15 and 20 miles distant in order to see it; but as it is brought to bear more to the westward, it illuminates more of the sea until, on the bearing S. 86° 28' W., it is visible at all distances between the extreme limit of its range and the shore. To the westward and north-westward of the south-west point of Formosa, the light is entirely obscured by the land, between the bearings S. 80° 13' E. and S. 28° E. The lightkeepers' dwellings and boundary wall are painted white. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 2 guns with an interval of 3 minutes between them, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 8 minutes.	33
Square, white. Lan- tern let into seaward angle of building.	164½	16½	1883	D. 6th Order	Visible from N. 36° W. round by N. and E. to S. 20° 30' E., where the light is shut out by the bluff at the foot of Ape Hill.	34
Iron lattice mast, white.	32½	33½	1882	do.	Position changed in November 1890 to a new site about 1,000 feet in a N.W. by N. direction from its last position. Illuminates the whole sea horizon. During the north-east monsoon vessels may anchor anywhere in from 5½ to 6 fathoms, with the light bearing between N. 50° E. and N. 60° E. During the south-west monsoon the best anchorage will be found in from 6 to 7 fathoms, with the light bearing about N.E. ½ N.	35
Round, black	205	33	1875	D. 4th Order	Visible all round except where obscured by the islands. The lightkeepers' dwellings and boundary wall are painted white. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 2 guns with an interval of 5 minutes between them, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 10 minutes.	36
Round, white	142	35	1888	D. 6th Order	The high light shows a <i>white</i> light from S. 52° E. round by E. to N. 68½° E. The low light shows <i>green</i> from S. 59° E. to S. 84° E., <i>white</i> from S. 84° E. to N. 86° E., and <i>red</i> from N. 86° E. to N. 61° E. The two <i>white</i> lights, when kept in line, indicate the best channel for crossing the bar when the bar is in its normal state.	37
Square hut on the top of a square iron frame- work. All white.	33	45	1888	do.		38
Round, black	286	64	1874 altd. 1875	D. 1st Order	The lightkeepers' dwellings and boundary wall are painted white. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 3 guns with an interval of 2 minutes between the first and second and second and third, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 12 minutes.	39
do.	257	54	1873	do.	Visible all round. The lightkeepers' dwellings and boundary wall are painted white. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 2 guns with an interval of 3 minutes between them, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 10 minutes.	40

LIGHTS—Continued.

No.	District.	Name of Light.	Location.	Latitude N.	Longitude E.	Fixed, Fixed & Flashing, Re- volving, Occulting.	Intervals between the Flashes.	Miles seen in clear Wea- ther.
41	Foochow	Middle Dog	N.E. extremity of Middle Dog Island.	*25° 58' 10".3	*119° 59' 2".1	F. & Fl.	½ minute	23
42	do.	Pagoda Rock	On the rock in the Pagoda Anchor- age.			F.		1
43	Ningpo	Square Island	Summit of island	29° 59' 21"	121° 45' 22"	F.		9
44	do.	Tiger Island	do.	29° 57' 41"	121° 43' 49"	F.		5
45	Ningpo and Shanghai.	Loka Island	North point of the island	29° 58' 15"	122° 27' 20"	F.		15 white, 7½ red.
46	Shanghai and Ningpo.	Steep Island	Summit of island	*30° 12' 42".2	*122° 35' 20".1	Rev.	½ minute	22
47	Shanghai ...	West Volcano	do.	*30° 20' 50".1	*121° 51' 25"	F.		15

* Geographical position furnished by Commander W. U. Moore, R.N., H.B.M.S. Rambler.

LIGHTS—Continued.

Colour, or any Peculiarity of Light-tower.	Height in Feet of Centre of Light above HW	Height in Feet of Building from Base to Vane.	Year lighted.	Character and Order of Illuminating Apparatus.	REMARKS.	No.
Round, white	257	64	1872	D. 1st Order	Visible from S. 70° E. round by S. and W. to N. 40½° E. From S. 70° E. round by E. to N. 40½° E. the light is obscured by the Tongsha and Middle Dog Islands, except from S. 89° E. to N. 81¾° E., and from N. 61½° E. to N. 57° E., where the light is also visible. The lightkeepers' dwellings and boundary wall are painted white. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 3 guns with an interval of 2 minutes between the first and second and second and third, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 15 minutes.	41
Iron pile surmounted by a cage, painted red.	16	28	1871	Unclassed ...	Red, visible all round.....	42
Octagonal, white	123	33	1865 altd. 1872	D. 5th Order	Visible all round. A 5-cwt. fog bell is sounded <i>once</i> in fogs at 15-second intervals.	43
Octagonal, red and white vertical stripes.	148	30	1865 altd. 1872	D. 6th Order	Red, visible all round. A gong is sounded in fogs, <i>five times</i> in quick succession, at intervals of about 1 minute. The lightkeepers' dwellings are painted in red and white vertical stripes.	44
White.....	128	.....	1890	D. 4th Order	White from N. 14° 30' W. to N. 86° W. In this sector there are two small obscurations caused by islands to the S.S.E. of Loka, the light being invisible between N. 17° 30' W. and N. 19° 50' W. and between N. 23° W. and N. 26° W. Red from N. 86° W. to S. 78° 30' W.; white from S. 78° 30' W. to S. 25° W.; red from S. 25° W. round by S. to S. 89° 45' E.; white from S. 89° 45' E. to N. 77° E. From N. 77° E. round by N. to N. 14° 30' W. the light is entirely obscured by Loka Island.	45
Round, black	243	47	1883	D. 3rd Order	Between the bearings N. 20° 54' E. and N. 41° 17' E. the light is obscured by Tripod Island, and to the eastward and south-eastward of Video and the Fisherman's Group it is not visible between N. 88° 39' W. and N. 57° 41' W. To the westward and north-westward of Hall Island and Hewett Islands it is also obscured between S. 82° 13' E. and S. 63° 35' E., with the exception of a ray between the bearings S. 65° 53' E. and S. 64° 39' E. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 3 guns with an interval of 3 minutes between the first and second and second and third, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 10 minutes.	46
do.	93	33	1872	D. 4th Order	Visible all round. The lightkeepers' dwellings are painted white. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 2 guns with an interval of 5 minutes between them, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 10 minutes.	47

LIGHTS—*Continued.*

No.	District.	Name of Light.	Location.	Latitude N.	Longitude E.	Fixed, Fixed & Flashing, Re- volving, Occulting.	Intervals between the Flashes.	Miles seen in clear Wea- ther.
48	Shanghai and Ningpo.	Bonham Island	Southern shoulder of island	*30° 36' 56"	*122° 25' 5"	Rev.	$\frac{1}{2}$ minute	22
49	Shanghai ...	Gutzlaff	Summit of island	*30° 48' 36".8	*122° 10' 11".6	F.	.....	20
50	do. ...	North Saddle	N.E. extremity of island	*30° 51' 41".4	*122° 40' 16".6	Rev.	1 minute	24
51	do. ...	Tungsha	Light-vessel off S.W. edge of Tungsha Bank, in 4 fathoms water, with Gutzlaff Lighthouse bearing S. 20° E., Shaweishan Island N. 37° E.	31° 8' 21"	122° 0' 18"	Rev.	$\frac{1}{2}$ minute	11
52	do. ...	Shaweishan	Summit of island	31° 25' 27"	122° 14' 42"	F.	.....	22

* Geographical position furnished by Commander W. U. MOORE, R.N., H.B.M.S. Rambler.

LIGHTS—Continued.

Colour, or any Peculiarity of Light-tower.	Height in Feet of Centre of Light above HW	Height in Feet of Building from Base to Vane.	Year lighted.	Character and Order of Illuminating Apparatus.	REMARKS.	No.
Round, red and white horizontal bands.	237	47	1883	D. 3rd Order	Alternate <i>red</i> and <i>white</i> flashes. Between the bearings S. 14° 41' W. and S. 47° 30' W. the light is obscured by the high land of Bonham Island, and to the northward and eastward of Elliot, Raffles, and Senhouse Islands it is also obscured from S. 12° 2' E. to S. 82° 16' W., with the exception of rays between S. 11° 24' E. and S. 10° 36' E., between S. 2° 21' E. and S. 0° 44' E., between S. 1° 31' W. and S. 3° 19' W., and between S. 50° 5' W. and S. 60° 11' W. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 2 guns with an interval of 1 minute between them, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 8 minutes. <i>Danger.</i> —Vessels should be careful to avoid Bonham Rock, which is described in vol. III of the "China Sea Directory" as a dangerous rock awash at low water and situated 1 cable from the southernmost of the small islets west of Bonham Island, with the lighthouse bearing S.E. by E. $\frac{1}{4}$ E., distant $6\frac{1}{2}$ cables.	48
No tower, white lantern.	270	24	1869	do.	Visible all round. Telegraph station. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 3 guns with an interval of 2 minutes between the first and second and second and third, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 15 minutes.	49
Upperpart black, lower white.	273	54	1870	D. 1st Order	Visible from N. 52° W. round by W. and S. to N. 73° E. The remaining angle is chiefly obscured by the Saddle and Parker groups of islands. The lightkeepers' dwellings are painted white. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 3 guns with an interval of 1 minute between the first and second and 5 minutes between the second and third, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 10 minutes.	50
Red, one mast with black ball.	40	.....	1855 altd. 1871	C.	"TUNGSHA" on her sides. A gun will be fired when vessels are seen running into danger, and the course that should be steered will be signalled by the Commercial Code. In foggy weather a steam horn will be sounded at intervals of 10 seconds. When necessary to lower the light for trimming, a small <i>white</i> light will be hoisted, and a flash-light burned. In order to show the direction in which the light-vessel is riding, a <i>white</i> riding-light will be exhibited from sunset to sunrise from the fore-stay, at a height of 6 feet above the rail. If the light-vessel be driven from her proper position to one where she is of no use as a guide to shipping, the usual light will not be shown, but a <i>fixed red</i> light will be exhibited at each end of the vessel; the ball will be struck as soon as possible, and till struck it will be surmounted by a red flag.	51
Round, black.....	229	55	1871	D. 1st Order	Visible all round. The lightkeepers' dwellings are painted white. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 3 guns with an interval of 5 minutes between the first and second and 1 minute between the second and third, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 15 minutes.	52

LIGHTS—Continued.

No.	District.	Name of Light.	Location.	Latitude N.	Longitude E.	Fixed, Fixed & Flashing, Re- volving, Occulting.	Intervals between the Flashes.	Miles seen in clear Wea- ther.
53	Shanghai	Kiutoan*	Light-vessel in $3\frac{1}{2}$ fathoms water, off the S.E. end of the Blockhouse Shoal. Kiutoan Beacon bears S. $68\frac{1}{4}^{\circ}$ W., distant 3.45 miles.	.....	.....	F.	.....	11
54	do. ...	Kiutoan Small Beacon	On the south bank of the Yangtze, $5\frac{1}{2}$ miles N.W. of the Kiutoan Beacon.	$31^{\circ} 19' 10''$	$121^{\circ} 39' 9''$	F.	.....	5
55	do. ...	Lismore Wreck Light-boat.	About 500 feet to the northward of the Lismore wreck.	.....	.....	F.	.....	1
56	do. ...	Woosung	Left bank of the Woosung River, near Woosung.	$31^{\circ} 23' 18''$	$121^{\circ} 29' 36''$	F.	.....	12 white, 8 red, 5 green
57, 58	do. ...	Woosung Inner-Bar Lights: Feima Channel.	Left bank of the Woosung River..	.....	.....	F.	.....	2
59, 60	do. ...	Woosung Inner-Bar Lights: Old Channel.	Right bank of the Woosung River	.....	.....	F.	.....	2
61	Chinkiang, Yangtze.	North Tree	On the north bank of the river ...	.....	.....	F.	.....	7
62	do. ...	Cooper Bank	do. do. ....	.....	.....	F.	.....	7
63	do. ...	Tung-lo-tu	do. do. ....	.....	.....	F.	.....	7
64	do. ...	Bate Point, or Fish-bourne Island.	On Bate Point .....	.....	.....	F.	.....	7
65	do. ...	Beaver, or Pottinger Island.	On the southern extremity of the island.	.....	.....	F.	.....	7
66	do. ...	Tantu	On the south bank of the river, distant 5.62 miles below Silver Island.	.....	.....	F.	.....	7
67	do. ...	Pei-sin-chow	Lower (east) end of island, distant 5 miles from Chinkiang.	.....	.....	F.	.....	7
68	do. ...	Bethune Point	Upper (west) end of Pei-sin-chow Island.	.....	.....	F.	.....	7
69	do. ...	Mud Fort	On a low point on the north bank of the river, marked on some of the British Admiralty charts as Mud Fort, distant from Bethune Point 21 miles.	.....	.....	F.	.....	7
70	do. ...	Wade Island	On the island, about 4 miles from the lower (north) end.	.....	.....	F.	.....	7

* Shifted to present position on the 5th January 1892.

LIGHTS—Continued.

Colour, or any Peculiarity of Light-tower.	Height in Feet of Centre of Light above HW	Height in Feet of Building from Base to Vane.	Year lighted.	Character and Order of Illuminating Apparatus.	REMARKS.	No.
Red, one mast with black ball.	35	.....	1878	C.	"KIUTOAN" on her sides. In foggy weather a 10-cwt. fog bell will be struck three double blows in each minute, the interval between the blows of each pair being 5 seconds, and between two successive pairs of blows 15 seconds. When necessary to lower the light for trimming, a small <i>white</i> light will be hoisted, and a flash-light burned. In order to show the direction in which the light-vessel is riding, a <i>white</i> riding-light will be exhibited from sunset to sunrise from the fore-stay, at a height of 6 feet above the rail. If the light-vessel be driven from her proper position to one where she is of no use as a guide to shipping, the usual light will not be shown, but a <i>fixed red</i> light will be exhibited at each end of the vessel; the ball will be struck as soon as possible, and till struck it will be surmounted by a red flag. Vessels should not attempt to pass to the north-eastward of the lightship in her present position.	53
Wooden tripod, white	32	40	1868 altd. 1878	D. 6th Order	Red, visible all round except on the landward side.....	54
Junk with one mast and ball.	.....	.....	1877	Unclassed ...	A <i>red</i> light with a <i>white</i> light underneath it. Vessels should not attempt to pass between the light-boat and the wreck.	55
Square, black	50	58	1865 altd. 1872, 1873, 1875, 1878, and 1888. 1893	D. 4th Order	<i>White</i> from the bank of the Yangtze to the north-westward of the lighthouse to S. 14° 30' W.; <i>green</i> from S. 14° 30' W. to S. 57° 20' W.; <i>white</i> from S. 57° 20' W. to S. 70° 50' W.; and <i>red</i> from S. 70° 50' W. to the left (western) bank of the Woosung River.	56
.....	.....	.....	1893	D. 7th Order	A <i>white</i> light on the low pole near the river bank, and a <i>red</i> light on the high pole farther inland. See Nos. 47, 48 in list of Beacons.	57, 58
.....	.....	.....	1872	Red, D. 7th Order. White, D. 8th Order.	A <i>red</i> light on the low bar mark near the river bank, and a <i>white</i> light on the high mark farther inland. See Nos. 49, 50 in list of Beacons.	59, 60
Black, single pole, sur- mounted by wicker ball.	65	73	1868	D. 6th Order	Altered 1873. Position changed 1874, 1884, 1886, and 1890. In April 1892 this light was shifted 770 feet N. 50° E. from its last position.	61
do.	51	62	1867	do.	Altered 1873. Position changed 1876, 1880, 1881, 1882, 1883, 1885, 1887, and 1888. In July 1892 this light was shifted 1,064 yards S. 42° E. from its last position.	62
do.	49	59	1871	do.	Altered 1875. Position changed 1877	63
do.	53	63	1867	do.	Altered 1873.....	64
do.	52	62	1867	do.	Altered 1872. Position changed 1878. In September 1885 this light was shifted about 690 yards S. 11° E. from its last position.	65
do.	75	43	1867	do.	Altered 1875.....	66
do.	51	64	1871	do.	Altered 1873. In November 1893 this light was shifted 200 feet S. 42° E. from its last position.	67
do.	55	68	1867	do.	Altered 1875. Position changed 1878, 1881, 1883, and 1885. In September 1887 this light was shifted 230 yards N. 5° E. from its last position.	68
do.	55	70	1877	do.	Position changed 1878 and 1881. In April 1890 this light was shifted 720 feet N. 70° E. from its last position.	69
do.	52	70	1867	do.	Altered 1873.....	70

LIGHTS—Continued.

No.	District.	Name of Light.	Location.	Latitude N.	Longitude E.	Fixed, Fixed & Flashing, Re- volving, Occulting.	Intervals between the Flashes.	Miles seen in clear Wea- ther.
71	Chinkiang, Yangtze.	Wuhu.....	East bank of the river, $3\frac{1}{2}$ miles above Point Morton.	.....	.....	F.	.....	7
72	Kiukiang, Yangtze.	Point Haines Beacon..	On the south (right) bank of the river.	.....	.....	F.	.....	7
73	do. ...	Two-fathom Creek Beacon.	On the left bank of Two-fathom Creek, 1,230 yards N. 87° E. from extreme point on the upper (western) end of the creek.	.....	.....	F.	.....	7
74	do. ...	Buckminster Island Beacon.	On Chin-té-chow Island, about $1\frac{1}{2}$ miles from the lower (north) end.	.....	.....	F.	.....	7
75	do. ...	Fitzroy Island Beacon	On the left bank of the river.....	.....	.....	F.	.....	7
76	do. ...	Tai-tzü-chi Beacon....	On the N.W. side of the Rock Temple.	.....	.....	F.	.....	7
77	do. ...	Kiangloong Wreck Light-boat.	Moored off the left bank of the river, abreast the wreck.	.....	.....	F.	.....	4
78	do. ...	Hen Point Beacon	On the left bank of the river, opposite Hen Point.	.....	.....	F.	.....	7
79	do. ...	Eagle Island Beacon...	On the right bank, near point opposite Ngankin.	.....	.....	F.	.....	7
80	do. ...	Christmas Island Bea- con.	Upper (south) end of island .....	.....	.....	F.	.....	7
81	do. ...	Spencer Rock Light- boat.	Moored immediately below the lower or N.E. ledge of Spencer Rock, in Tung-liu Reach.	.....	.....	F.	.....	7
82	do. ...	Dove Point Beacon ...	On the north (left) bank of the river.	.....	.....	F.	.....	7
83	do. ...	N.E. Crossing Beacon	do. do.	.....	.....	F.	.....	7
84	do. ...	N.E. Crossing Channel Light-boat.	Moored near the lower end of the sand-bank marked on British Admiralty Chart No. 2,695, "Dries at 26 feet."	.....	.....	F.	.....	7
85	do. ...	Point Otter, Lay Island	Lower (east) end of island .....	.....	.....	F.	.....	7
86	do. ...	Kiukiang Rocks.....	On the south (right) bank of the river.	.....	.....	F.	.....	7
87	do. ...	Kiukiang Rocks Bea- con.	On the rock itself .....	.....	.....	F.	.....	1
88	Hankow, Yangtze.	Li-yü-shan	On top of small hill on right bank of river, about 4 miles above Wu- sueh and opposite lower end of Hwang-lin-chow Shoal.	.....	.....	F.	.....	7

LIGHTS—Continued.

Colour, or any Peculiarity of Light-tower.	Height in Feet of Centre of Light above HW	Height in Feet of Building from Base to Vane.	Year lighted.	Character and Order of Illuminating Apparatus.	REMARKS.	No.
Black, single pole, sur- mounted by wicker ball.	77	44	1867	D. 6th Order	Altered 1875.....	71
do.	34	48	1870	do.	Altered 1871. Position changed 1888.....	72
do.	34	47	1893	do.	Established to mark the upper (western) entrance of creek	73
do.	32	46	1870	do.	Altered 1871. Position changed 1883. In October 1891 this light was shifted S. 48° E. 50 yards from its last position.	74
do.	32	46	1870	do.	Altered 1871. Position changed 1891. In May 1893 this light was shifted 130 yards N. 73° E. from its last position.	75
do.	26	42	1870	do.	Altered 1871.....	76
One mast with black ball.	25	.....	1873	do.	Altered 1875, 1876, 1883, and 1885. <i>Red</i> . The light-boat is moored abreast the wreck (not over it), to mark the starboard side of the channel for vessels entering from seaward; and it should be passed close-to in order to avoid the wreck. From the wreck Hen Point bears S. 68° E., and Tai-tzū-chi Rock Temple N. 35° E.	77
Grey, single mast.....	35	38½	1870	do.	Altered 1871. Position changed 1882. Discontinued 1883. Re-established in March 1885. <i>White</i> . Visible all round.	78
Black, single pole, sur- mounted by wicker ball.	32	46	1870	do.	Altered 1871. Position changed 1879, 1880, 1882, 1884, and 1886. In May 1887 this light was removed from the island and re-erected on the right bank of the river, opposite its former position. In September 1891 the light was shifted down river about 1½ miles (nearer Ngankin).	79
do.	34	48	1870	do.	Altered 1871. Position changed 1873, 1874, 1878, 1880, 1883, 1886, 1887, 1888, 1889, 1890, and 1892. In October 1893 this light was shifted 206 yards N. 11° E. from its last position.	80
One mast with black ball.	25	.....	1873	do.	Altered 1884. The light-boat is moored at the lower or N.E. ledge of Spencer Rock, to mark the starboard side of the south channel for vessels entering from seaward. Only in position during low stage of the river, viz., from about 1st December to 30th June.	81
Black, single pole, sur- mounted by wicker ball.	32	46	1870	do.	Altered 1871. Position changed 1872, 1873, 1874, 1875, 1878, 1883, 1886, and 1888. In December 1890 this light was shifted 130 yards N. 52° E. from its last position.	82
do.	34	48	1870	do.	Altered 1871. Position changed 1872, 1874, 1875, 1883, 1888, and 1890. In April 1893 this light was shifted 1,498 yards S. 79° E. from its last position.	83
One mast with black ball.	25	.....	1886	do.	The light-boat is moored about 3 miles above N.E. Crossing light beacon, on the north side of the channel at its narrowest part, to indicate the channel when the banks are flooded. Only in position during high stage of the river, viz., from about 1st July to 30th November.	84
Black, single pole, sur- mounted by wicker ball.	34	48	1870	do.	Altered 1871. In November 1893 this light was shifted 50 yards S. 52° W. from its last position.	85
Lantern - hut white; light shown from corner.	52	16	1870	do.	Altered 1886. Shows a <i>red</i> sector of light over the rocks, and a <i>white</i> sector in approaching them from above or below.	86
.....	28	.....	1891	Unclassed	<i>Red</i> . This beacon is erected on the middle of the rock, and surmounted by a 4-foot spherical wicker cage.	87
Light exhibited from top of small pillar standing in front of keeper's quarters—a two-story grey brick building with a Chinese roof.	84	.....	1886	D. 6th Order	The hill on which the light stands is known locally as Li-yü- shan. The light illuminates an arc of 240°, i.e., from N. 40° W. round by W., S., and E. to N. 80° E.	88

LIGHTS—Continued.

No.	District.	Name of Light.	Location.	Latitude N.	Longitude E.	Fixed, Fixed & Flashing, Re- volving, Occulting.	Intervals between the Flashes.	Miles seen in clear Wea- ther.
89	Hankow, Yangtze.	Low Point.....	On the point			F.		5
90	do.	Ruined Fort.....	On top of fort			F.		7
91	do.	Lee Rock	On bluff, about 1 mile above rock			F.		4
92	do.	Collinson and Hunter Islands Light-boat.	Off lower end of Collinson Island cut-off and upper end of Hunter Island.			F.		7
93	do.	Collinson Island Light-boat.	Off upper end of Collinson Island			F.		7
94	do.	Ten-foot Rock Light- boat.	Near north bank of river opposite Ten-foot Rock.			F.		7
95	do.	Gravener Island Light-boat.	Off upper end of Gravener Island			F.		7
96, 97	do.	Chung-chih-kuan Range Lights.	On right bank of river, opposite Huquang Rock, Huquang Win- ter Channel, Lo-ko-hi Reach.			F.		{ 4 2½
98, 99	do.	So-chia-chih Range Lights.	On right bank of river, opposite Huquang Rock, Huquang Win- ter Channel, Lo-ko-hi Reach.			F.		{ 2½ 2½
100	do.	Bouncer Island Light-boat.	Off lower end of Bouncer Island			F.		7
101	do.	Yang-lo	On small hill, distant 111 yards to the N.W. of the Yang-lo Joss House.			F.		7½
102	Chefoo.....	South-east Shantung Promontory.	On the S.E. elbow of the South- east Shantung Promontory.	36° 54' 0"	122° 31' 45"	Rev.	½ minute	15.70

LIGHTS—Continued.

Colour, or any Peculiarity of Light-tower.	Height in Feet of Centre of Light above HW	Height in Feet of Building from Base to Vane.	Year lighted.	Character and Order of Illuminating Apparatus.	REMARKS.	No.
A. single pole, with ball on top.	43	.....	1871	D. 6th Order	<i>Red.</i> Altered 1872. Visible from S.E. round by S. and W. to N. 15° E.	89
A single pole, with ball on top, at corner of hut.	31	.....	1873	do.	Visible from S. 25° W. round by S. and E. to N. 35° W.	90
Lantern-hut grey; light shown from corner.	60	.....	1882	do.	<i>Red.</i> Altered December 1884	91
One mast and ball	25	.....	1871	do.	Altered 1873. Stationed off the upper end of Hunter Island from about December to end of June, and off Collinson Island, lower end (cut-off) from about 1st July to December.	92
do.	25	.....	1871	do.	Altered 1873. Stationed near north bank from about December to end of June, and to mark cut-off from about 1st July to December.	93
do.	25	.....	1873	do.	Opposite Ten-foot Rock from about end of November to 30th June.	94
do.	25	.....	1869	do.	Altered 1873. Position changed as necessary	95
A single white pole and ball.	.....	.....	1892	do.	<i>Red</i> light on high pole. <i>White</i> light on low pole (nearer to the channel). Temporary lights for clearing Huquang Rock. Exhibited from about December to May, or when the river is below 19 feet (Hankow established water gauge).	96
A single white pole and ring.	.....	.....	1892	Unclassed		97
A single pole and ball, painted white, red, and black.	.....	.....	1892	do.	<i>White</i> light on high range pole. <i>White</i> light on low range pole (nearer to the channel). Temporary range lights for clearing W. C. de Vries Rock. Exhibited from about December to May, or when the river is below 19 feet (Hankow established water gauge).	98
A single pole, with ring on top, painted white, red, and black.	.....	.....	1892	do.		99
One mast and ball	25	.....	1871	do.	Altered 1873. Stationed on north side of spit, to mark the cut-off, from about 1st July to December, and on south side from about 1st December to end of June.	100
One single mast	67	.....	1892	do.	On the north bank of river 14 miles below Hankow. Lighted temporarily the first time August 1891. The light is visible from river between the bearings S.S.E. through E. and N. to N.N.W.	101
Round, red and white horizontal bands.	96½	77½	1883	D. 1st Order	The lightkeepers' dwellings and boundary wall are painted white. A first-class siren, giving a blast of 4 seconds' duration at intervals of 1½ minutes, will be sounded during thick or foggy weather. <i>Dangers.</i> —Regarding the island which forms the South-east Shantung Promontory, the "China Sea Directory," vol. III, 1874, p. 463, states that:—"Extensive reefs, some detached, border the whole shore, which is of the most dangerous character, and should not be passed at less than a mile, except off the western bluff, nor in less than 9 fathoms water."	102

LIGHTS—Continued.

No.	District.	Name of Light.	Location.	Latitude N.	Longitude E.	Fixed, Fixed & Flashing, Re- volving, Occulting.	Intervals between the Flashes.	Miles seen in clear Wea- ther.
103	Chefoo.....	North-east Shantung Promontory.	On the N.E. extremity of the North-east Shantung Promontory.	37° 24' 0"	122° 42' 0"	Occ.	13 secs. light, 2 secs. eclipse, every quarter of a minute.	22
104	do.	Chao-pei-tsui	On the northernmost bluff immediately to the eastward of Weihaiwei Harbour.	37° 27' 41"	122° 15' 5"	Rev.	$\frac{1}{2}$ minute	15
105	do.	Observatory Island ...	Near western shoulder of island...	37° 30' 25"	122° 10' 25"	F.	.....	4 red, 6 white.
106	do.	Chefoo Light.....	Kung-tung-tao Island, highest part	37° 34' 10"	121° 32' 15"	F.	.....	22
107	do.	Howki Island	Summit of island	38° 3' 45"	120° 39' 0"	Rev.	$\frac{1}{2}$ minute	24
108	do.	Port Arthur.....	On bluff at western side of entrance to Port Arthur.	38° 47' 26"	121° 15' 26"	F.	.....	8
109	do.	Lao-t'ieh-shan Promontory.	On S.W. slope of Lao-t'ieh-shan Promontory.	38° 43' 17"	121° 8' 26"	Gp. Fl.	$\frac{1}{2}$ minute	25

LIGHTS—Continued.

Colour, or any Peculiarity of Light-tower.	Height in Feet of Centre of Light above HW	Height in Feet of Building from Base to Vane.	Year lighted.	Character and Order of Illuminating Apparatus.	REMARKS.	No.
Round, white	220	64	1874 altd. 1892	D. 1st Order	<i>White</i> from S. 62° E. to S. 30° E.; <i>red</i> from S. 30° E. to S. 17° E.; <i>white</i> from S. 17° E. round by S. and W. to N. 21° E.; and <i>red</i> from N. 21° E. to N. 49° E. Between S. 59½° E. and S. 18¼° E. the light is seven times obscured by peaks; the obscuration between S. 26° 18' E. and S. 23° 10' E. being caused by Alceste Island. The lightkeepers' dwellings and boundary wall are painted white. During foggy or thick weather, a first-class siren will be sounded, giving 2 blasts, each of about 2½ seconds' duration (high note, low note), in quick succession every 2 minutes. <i>Note.</i> —The former fog signal, which was 2 guns fired with an interval of 1 minute between them and repeated after an interval of 10 minutes if a vessel's signal—showing that she was under way—continued to be heard, will not be given in future unless the siren shall be disabled.	103
White.....	94	35½	1891	D. 4th Order	To mark the eastern entrance to Weihaiwei Harbour. The lightkeepers' dwellings and boundary wall are painted white.	104
White, iron frame-work	61	.....	1891	D. 6th Order	<i>Red</i> between the north-western shoulder of Leu-kung-tau and S. 46½° W.; <i>white</i> between S. 46½° W. and S. 28¾° W.; and <i>red</i> between S. 28¾° W. round by E. and N. to N. 23½° W. The lightkeepers' dwelling is painted white. <i>Directions.</i> —Vessels entering should keep in the <i>white</i> sector, with the light bearing about S. 37° W. magnetic, till Round Island bears N. 45° W., then haul gradually to the westward into the <i>red</i> sector and round the north-western end of Observatory Island at a distance of not less than 2 cables.	105
Round, white and red horizontal bands.	242	45	1867	C. 1st Order	Visible all round. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 2 guns with an interval of 5 minutes between them, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 8 minutes.	106
Round, black	328½	46½	1882	D. 1st Order	Visible all round. The lightkeepers' dwellings are painted white. The keepers at this lighthouse on hearing a bell, fog horn, steam whistle, or any other sound, during foggy or thick weather, which shall indicate the proximity of a vessel, will fire 2 guns with an interval of 2 minutes between them, and, if the vessel's fog signal—showing that she is under way—is still heard, will repeat the firing after a space of 10 minutes. <i>Note.</i> —The exhibition of this light is discontinued on the 16th December of each year and resumed on the 1st March of the following year.	107
Black and white-hori- zontal bands.	90	22	1891	D. 6th Order	<i>White</i> between the bearings S. 50° W. round by W. and N. to N. 27½° E. Keepers' dwellings and boundary wall are painted white. <i>Note.</i> —The Port Arthur Light is in the Newchwang Customs district, but it is under the control of the Chefoo Customs.	108
Round, white	315½	52	1893	D. 1st Order	Showing double <i>white</i> flashes between the bearings S. 8° E. round by E. and N. to N. 73° W., except where it is obscured by outlying islands. <i>Notes.</i> —The exhibition of this light is discontinued on the 16th December of each year and resumed on the 1st March of the following year. This light is in the Newchwang Customs district, but it is under the control of the Chefoo Customs.	109

LIGHTS—Continued.

No.	District.	Name of Light.	Location.	Latitude N.	Longitude E.	Fixed, Fixed & Flashing, Re- volving, Occulting.	Intervals between the Flashes.	Miles seen in clear Wea- ther.
110	Tientsin.....	Tsao-fei-tien	Tsao-fei-tien Island ("Shalui-tien").	38° 56' 0"	118° 31' 0"	F.	.....	10
111	do.	Taku	Light-vessel in outer anchorage, and moored in 18 feet of water at low water springs, off Taku Bar.	38° 54' 50"	117° 51' 0"	Rev.	$\frac{1}{2}$ minute	11
112	Newchwang	Newchwang	Light-vessel in 5 fathoms water, about $3\frac{1}{2}$ miles W.S.W. from bar of Liao River.	40° 35' 0"	122° 0' 0"	F.	.....	11

LIGHTS—Continued.

Colour, or any Peculiarity of Light-tower.	Height in Feet of Centre of Light above HW	Height in Feet of Building from Base to Vane.	Year lighted.	Character and Order of Illuminating Apparatus.	REMARKS.	No.
White, octagonal, built of brick and stone.	50	45	1886	D. 6th Order	Visible all round. Discontinued from 1st January to 1st March.	110
Red, one mast with black ball.	35	.....	1880 altd. 1887	C.	"TAKU" on her sides. In foggy weather a gong will be sounded at 1-minute intervals. In order to show the direction in which the light-vessel is riding, a <i>white</i> riding-light will be exhibited from sunset to sunrise from the fore-stay, at a height of 6 feet above the rail. This light-vessel is only in position from the opening of the river to the 30th November, on account of ice. If the light-vessel be driven from her proper position to one where she is of no use as a guide to shipping, the usual light will not be shown, but a <i>fixed red</i> light will be exhibited at each end of the vessel; the ball will be struck as soon as possible, and till struck it will be surmounted by a red flag.	111
Red, three masts, with black ball on main- mast only.	35	.....	1867 altd. 1871	C.	"NEWCHWANG" on her sides. A gun will be fired when vessels are seen running into danger, and the course that should be steered will be signalled by the Commercial Code. In foggy weather a steam fog horn will be sounded at intervals of 10 seconds. When necessary to lower the light for trimming, a small <i>white</i> light will be hoisted and a blue light burned; and, in order to show the direction in which the light-vessel is riding, a <i>white</i> riding-light will be exhibited from sunset to sunrise from the fore-stay, at a height of 6 feet above the rail. This light-vessel is only in position from about the 1st April to the 15th November, on account of the ice. If the light-vessel be driven from her proper position to one where she is of no use as a guide to shipping, the usual light will not be shown, but a <i>fixed red</i> light will be exhibited at each end of the vessel; the ball will be struck as soon as possible, and till struck it will be surmounted by a red flag.	112

BUOYS.

DISTRICT NUMBER AND NAME.	MARK.		Depth: Low Water Spring Tides.	NOTE.
	Description.	Position.		
PAKHOI.				
1. Starboard Buoy.....	Red nun buoy, $4\frac{1}{2}$ feet in diameter, surmounted by a black spherical cage.	On starboard side of fairway, entering from seaward, between rows of fish-stakes off the village of Tikok, at the entrance to the anchorage.	21 feet.....	From the buoy, Custom House bears S. 84° E. and Tikok Point S. 32° E. A clear passage, 270 feet wide, exists between these buoys, with not less than 19 feet of water at low water spring tides.
2. Port Buoy.....	Black nun buoy, $4\frac{1}{2}$ feet in diameter, surmounted by a black diamond-shaped cage.	On port side of fairway, entering from seaward, between rows of fish-stakes off the village of Tikok, at the entrance to the anchorage.	18 do.	From the buoy, Custom House bears S. 83° E. and Tikok Point S. 30° E.
3. Harbour Buoy.....	White and black vertically striped nun buoy, $3\frac{1}{2}$ feet in diameter.	At inner (east) limit of anchorage for foreign vessels.	14 do.	From the buoy, Custom House bears S. 70° E. and Tikok Point S. 64° W. Vessels drawing more than 12 feet should not anchor to the eastward of the buoy.
KIUNGCHOW.				
1. Middle Channel Buoy...	Red and black horizontally striped conical 10-foot buoy, surmounted by a black spherical cage.	As fairway buoy at eastern entrance to the Middle Channel, Hainan Strait.	78 feet.....	This buoy marks the fairway of the eastern entrance to Middle Channel. Approximate position, latitude $20^{\circ} 17' 35''$ N., longitude $110^{\circ} 58' 20''$ E.
2. Magpie Rock Buoy.....	Black conical 6-foot buoy, surmounted by a black triangular cage.	About 2 cables to the eastward of the rock and about $1\frac{8}{10}$ miles to the south-eastward of Hainan Point.	48 do.	This buoy must be left on the port hand by vessels entering the strait from the eastward.
3. Hainan Head Bank Buoy	Red conical 6-foot buoy, surmounted by a black inverted frustum cage.	About 9 cables N. 67° E. from Hainan Point.	26 do.	This buoy must be left on the starboard hand by vessels entering the strait from the eastward.
4. Hainan Reef Buoy	Black conical 6-foot buoy, surmounted by a black spherical cage.	About $2\frac{1}{2}$ cables to the northward of the outer rock of Hainan Reef.	72 do.	This buoy must be left on the port hand by vessels entering the strait from the eastward.
CANTON.				
1. Dutch Folly North Buoy	Wooden conical-shaped buoy, painted red above water.	Near Dutch Folly Island, Canton River.	8 feet	Marks the western extremity of the channel, northern side, between the rocks, on which the depth of water is 4 feet at low water spring tides. A red light is placed on it from sunset to sunrise.
2. Dutch Folly South Buoy	Wooden conical-shaped buoy, painted black.	do. do.	12 do.	Marks the western extremity of the channel, southern side, between the rocks. Moored close to the northern side of the rock, on which the depth of water is 2 feet at low water spring tides. A green light is placed on it from sunset to sunrise.
3. Macao Fort Rock Buoy	do. do.	On the north-east extremity of Macao Fort Rock.	10 do.	Marks the north-eastern extremity of Macao Fort Rock. A green light is placed on it from sunset to sunrise. Vessels should pass between this buoy and the Haeshin Rock Buoy.

BUOYS—Continued.

DISTRICT NUMBER AND NAME.	MARK.		Depth: Low Water Spring Tides.	NOTE.
	Description.	Position.		
4. Haeshin Rock Buoy.....	Wooden conical-shaped buoy, painted red above water.	South-western edge of Haeshin Rock.	10 feet.....	Marks the south-western edge of Haeshin Rock. A red light is placed on the buoy from sunset to sun- rise. Vessels should pass between this buoy and the Macao Fort Rock Buoy.
5. Bird's Nest Rocks Buoy	do. do.	Off the south-western end of the Bird's Nest Rocks.	13 do.	Marks the south-western edge of the Bird's Nest Rocks. A red light is placed on this buoy from sunset to sunrise.
6. Shamien Rock Buoy.....	Wooden conical-shaped buoy, painted in red and black chequers above water.	On the northern extremity of the Shamien Rocks.	12 do.	Marks the northern extre- mity of Shamien Rocks. A red light is placed on the buoy from sunset to sunrise. Vessels entering should leave this buoy on the port hand when rounding-to, to anchor in the harbour.
7. Fa-ti Rock Buoy.....	do. do.	On the northern extremity of the rock.	12 do.	A red light is placed on this buoy from sunset to sun- rise.
SWATOW.				
1. Dove Rock Whistling Buoy.	Red and black chequered au- tomatic whistling buoy, 10 feet in diameter at the water line.	Off the Dove Rock.....	4½ fathoms...	Placed about 2 cables from the pinnacle of the Dove Rock, so as to mark the S.E. extremity of the reef.
2. Mud Flat Buoy	Red conical buoy, 6 feet in diameter at the water line, surmounted by a black spherical cage.	Outer edge of mud bank; E. ½ N. of Customs Pier; distant three-quarters of a mile.	2 do. ...	Marks the southern edge of the mud bank on the north side of the harbour.
3. Wyoming Rock Buoy...	Black conical buoy, 6 feet in diameter at the water line, surmounted by a black in- verted frustum cage.	Off the rock, Swatow Anchorage	7 do. ...	This buoy is placed about 40 yards N.E. from the rock, on which there is 4 feet of water at low water spring tides.
4. Madras Rock Buoy.....	Black conical buoy, 6 feet in diameter at the water line, surmounted by a black spherical cage.	do. do.	3½ do. ...	This buoy is placed about 40 yards N. by E. from the rock, which has only 6 feet of water on it at low water spring tides.
AMOY.				
1. Coker Rocks East Buoy	Black and white chequered conical buoy, 6 feet in diameter.	Eastward of the Coker Rocks	8 fathoms...	} Vessels should not pass be- tween these buoys.
2. Coker Rocks West Buoy	Red and white chequered conical buoy, 6 feet 5 inches in diameter.	Westward of the Coker Rocks	6½ do. ...	
3. Brown's Rocks East Buoy.	Black and white chequered conical buoy, 6 feet in diameter, surmounted by a black spherical cage 2 feet in diameter.	Eastward of the Brown's Rocks	12 do. ...	} do. do.
4. Brown's Rocks West Buoy.	Red and white chequered conical buoy, 6 feet in diameter, surmounted by a black spherical cage 2 feet in diameter.	Westward of the Brown's Rocks	6½ do. ...	
5. Harbour Rock Buoy.....	Red and black chequered nun buoy, 3 feet 4 inches in diameter.	On the north-western edge of the Harbour Rock.	22 feet	About 130 fathoms S.W. of Dock Island. Vessels pass- ing inside this buoy should give it a berth of not less than 50 fathoms.

BUOYS—Continued.

DISTRICT NUMBER AND NAME.	MARK.		Depth: Low Water Spring Tides.	NOTE.
	Description.	Position.		
6. Kellett Spit Buoy	Red and black vertically striped conical buoy, 6 feet in diameter.	On the northern end of the Kellett Spit.	22 feet	Vessels should not pass between this buoy and the Island of Kulangsu.
7. Quemoy Spit Buoy	Red automatic whistling buoy. The name "QUEMOY" is painted on the buoy in white letters.	Off the south-south-western edge of the spit.	8 fathoms ...	10 feet in diameter. Vessels should not pass between this buoy and Quemoy Island.
8. Minerva Rock Buoy	Black nun buoy, 7 feet 6 inches in diameter. The name "MINERVA" is painted on the buoy in white letters.	To the south-eastward of Minerva Rock (off the extremity of Cass Spit).	4 do. ...	From the buoy, the summit of Monkey Island bears N. 24½° E., Druid Head (on Kulangsu) bears N. 62° E.; Cornwallis Stone (on Amoy) bears S. 85° E. Vessels should not pass between this buoy and Sungseu Island.
TAMSUI.				
1. Northern Bar-buoy	Black conical buoy, 6 feet in diameter.	Northern side of approach to Tamsui Bar.	29 feet	Low Bar Light, S. 82° E.; Chinese beacon, N. 57° E.
2. Southern Bar-buoy	Red conical buoy, 6 feet in diameter.	Southern side of approach to Tamsui Bar.	22 do.	Low Bar Light, N. 85° E.; Chinese beacon, N. 46° E.
3. Harbour Buoy	Red nun buoy, surmounted by a black spherical cage.	On the northern edge of the sandspit at the southern side of the entrance to Tamsui Harbour.	13 do.	Low Bar Light, N. 80° E., about 3½ cables distant.
4. Inflexible Reef Buoy	Black conical buoy, 4 feet in diameter, surmounted by a black spherical cage.	Inflexible Reef, Kelung Harbour.	60 do.	Image Point, N. 60° W.; Ruin Rock, S. 28° W.
5. Coral Shoal Buoy	Red conical buoy, 4 feet in diameter, surmounted by a black spherical cage.	To the eastward of Coral Shoal, Kelung Harbour.	30 do.	Image Point, N. 24° W.; Ruin Rock, S. 61° W.
FOOCHOW.				
1. Min Reef Whistling Buoy.	Red and black chequered automatic whistling buoy. The name "MIN" is painted on the buoy in white letters.	Off the northern extremity of Min Reef.	66 feet	10 feet diameter. From the buoy Chang-chi Peak bears N. 49° E.; Sharp Peak bears N. 73° W.
2. Aymar Rock Buoy	Red and black chequered buoy, surmounted by a black diamond-shaped cage. The name "AYMAR" is painted on the buoy in white letters.	About 3 cables east of Aymar Rock, entrance to Min River.	54 do.	6 feet diameter. Chang-chi Peak bears N. 66° 30' E.; Middle Dog Lighthouse bears S. 35° 15' E.; Sea Dog bears S. 55° 30' E.
3. East Channel Entrance or No. 1 Fairway Buoy.	Red and black horizontally striped fairway buoy, surmounted by a cage.	Entrance to Min River, East Channel.	24 do.	10 feet diameter and 18 feet high to top of cage. Sharp Peak bears N. 73° 30' W.; Black Head bears S. 39° 30' W.
4. Middle or No. 2 Fairway Buoy.	Red and black horizontally striped fairway buoy, surmounted by a black conical frustum cage.	Entrance to Min River	15 do.	10 feet diameter and 18 feet high to top of cage. Sharp Peak bears N. 65¾° W.; Black Head bears S. 23½° W.
5. Inner or No. 3 Fairway Buoy.	Red and black horizontally striped fairway buoy, surmounted by a black cage.	do. do.	39 do.	10 feet diameter and 18 feet high to top of cage. Sharp Peak bears N. 47° W.; Round Island bears S. 58° W.

BUOYS—Continued.

DISTRICT NUMBER AND NAME.	MARK.		Depth: Low Water Spring Tides.	NOTE.
	Description.	Position.		
6. Eme Rock Buoy.....	Red nun buoy.....	Starboard side of channel, Min River.	13½ feet.....	Clears Eme Rocks. Sharp Peak Point bears S. 77° E.; Sharp Peak Summit bears N. 12° E.
7. Temple Rock Buoy.....	do.	Temple Rock, Min River.....	21 do.	Marks the southern extremity of the rock.
8. Stone Barrier Buoy.....	Black nun buoy	Close to the northern end of Stone Barrier opposite Temple Point, Min River.	21 do.	Vessels should not pass between this buoy and Wild Duck Bank (West Brother).
9. Spiteful Island Black Buoy.	do.	Port side of channel, Min River.	48 do.	Clears the rocks off Spiteful Island.
10. Niu-ta Rock South Buoy	Red and white chequered nun buoy.	On the southern edge of the Niu-ta Rock.	17 do.	} Vessels must not pass between these buoys.
11. Niu-ta Rock North Buoy	Black and white chequered nun buoy.	On the northern edge of the Niu-ta Rock.	24 do.	
NINGPO.				
1. Sesostris Rock Buoy	Black and red chequers, surmounted by a black cage.	Near the rock in mid-channel	30 feet	This buoy is placed to the eastward of the rock, on which there is 9 feet of water at low water spring tides.
2. Seaou-yew Spit Buoy ...	Black buoy, surmounted by a black cage.	On the end of the mud spit projecting from Seaou-yew Island.	14 do.	Tiger Island Lighthouse bears S. 23° W.; summit of Look-out Hill bears S. 40° E.
SHANGHAI.				
1. Ariadne Rock Whistling Buoy.	Red and black chequered automatic whistling buoy.	About 250 yards south of the Ariadne Rock.	30 feet	8 feet in diameter, and 8 feet above the water line. The Ariadne Rock just shows at low water spring tides.
2. Fairway Bell Buoy	Red and black horizontally striped buoy, surmounted by a black spherical cage.	Off the southern entrance to the Yangtze; Gutzlaff bearing south, and <i>Tungsha</i> lightship N. 60° W.	23 do.	10 feet in diameter, 15 feet high to top of cage.
3. <i>Fairy</i> Wreck Buoy.....	Green conical buoy, with the word "WRECK" and the numeral "3" painted on it in white.	About 150 yards north-eastward of wreck of <i>Fairy</i> ; House Island Beacon bearing N. 10° W.; distant about 4 ⁸ / ₁₀ miles.	Uncertain.	
4. Middle Ground Lower Buoy.	Black buoy with black spherical cage.	Off the north-eastern edge of the south bank, with House Island Beacon bearing N. 11° W.; distant about 3 ⁶ / ₁₀ miles.	do. ...	6 feet diameter, 11½ feet high to top of cage.
5. Middle Ground Upper Buoy.	Black buoy with black cylindrical cage.	Off the upper or north-western end of the shoal formerly known as the Middle Ground, with Kiutoan Beacon bearing S. 15½° W.; distant 2¼ miles.	do. ...	do. do.
6. South-east Knoll Buoy..	Red buoy with black spherical cage.	Off the south-easternmost of a line of knolls which are developing off the south-western side of Blockhouse Shoal; small Kiutoan Beacon bearing S. 87° W.; distant about 2 ⁹ / ₁₀ miles.	do. ...	do. do.
7. <i>Lismore</i> Wreck Buoy ...	Green nun buoy, with the word "WRECK" and the numeral "1" painted on it in white.	Immediately below the wreck of the <i>Lismore</i> , in line with the wreck and Woosung Lighthouse.	20 feet	4 feet diameter.

BUOYS—Continued.

DISTRICT NUMBER AND NAME.	MARK.		Depth: Low Water Spring Tides.	NOTE.
	Description.	Position.		
8. Woosung Spit Buoy.....	Red and black vertically striped buoy, with black spherical cage.	On the eastern end of Woosung Spit and starboard side of channel at the entrance to the Woosung River.	17 feet	10 feet diameter, 18 feet high to top of cage.
9. Tsungming Bank Buoy.	Red buoy with black spherical cage.	Off the south-eastern elbow of the Tsungming Bank.	Uncertain ...	6 feet diameter, 11½ feet high to top of cage. "High Dark Tree" on S.W. shore of Tsungming bearing N. 46½° E.
10. Dove's Nest Buoy..	do. do.	Off the edge of the Dove's Nest Shoal (which is a part of the Actæon Shoal), on the starboard side of the channel.	do. ...	6 feet diameter, 11½ feet high to top of cage.
11. Triumph Bank Buoy.†	Black buoy with black inverted frustum cage.	On the edge of the bank which extends from the southern shore.	do. ...	do. do. *
12. Actæon Buoy†.....	Red buoy with black spherical cage.	Off the edge of the Actæon Shoal, on the starboard side of the channel.	do. ...	do. do. *
13. Centaur Lower Buoy.†	Black buoy with black spherical cage.	On the south-eastern extremity of the Centaur Shoal.	do. ...	do. do. *
14. Actæon Shoal Upper Buoy.† §	Red and black vertically striped conical buoy, surmounted by a black triangular cage.	Off the north-western end of the Actæon Shoal.	do. ...	do. do. *
15. Middle Bank Buoy.‡	Red and black horizontally striped buoy, surmounted by a black spherical cage.	Lower end of the Langshan Crossing.	do. ...	do. do. *
16. North Bank Buoy‡	Red buoy with black inverted frustum cage.	To the southward of the south-eastern elbow of the North Bank.	do. ...	do. do. *
17. Langshan Buoy‡...	Red buoy with black spherical cage.	Off the edge of the bank forming the north-eastern side of the channel.	do. ...	do. do. *
18. Vine Point Lower Buoy.‡	Red buoy with black conical frustum cage.	do. do.	do. ...	do. do. *
19. Waterman Bank Upper Buoy.‡	Black buoy with black spherical cage.	Off the north-eastern edge of the continuation of the Waterman Bank.	do. ...	do. do. *
20. Vine Point Buoy‡	Red buoy with black spherical cage.	Off the north-western edge of the Vine Point Shoal.	do. ...	10 feet diameter, 18 feet high to top of cage.*
21. North Tree Rocks Buoy.	Red buoy with black inverted frustum cage.	About 100 yards to the southward and westward of the rocks.	do. ...	6 feet diameter, 11½ feet high to top of cage.
22. South-east Spit Buoy.§	Red and black vertically striped conical buoy, with a black diamond-shaped cage.	Off the south-eastern end of the Actæon and Dove's Nest Shoals.	do. ...	do. do.
23. Cone Tree Buoy §...	Black conical buoy, surmounted by a black spherical cage.	Off the eastern edge of the Actæon Shoal.	do. ...	do. do.
24. Fairway Buoy §	Red and black horizontally striped conical buoy, surmounted by a black spherical cage.	A little to the westward of mid-channel.	do. ...	do. do.
25. North-east Actæon Buoy.§	Black conical buoy, surmounted by a black spherical cage.	Off the north-eastern edge of the Actæon Shoal.	do. ...	do. do.

* The banks at the Centaur and Langshan Crossings are subject to frequent changes. These parts of the river should therefore be navigated with caution, and the lead kept going.

† These four buoys lead over the Centaur Crossing.

‡ These six buoys lead over the Langshan Crossing.

§ These five buoys mark the Harvey Point Channel.

BUOYS—Continued.

DISTRICT NUMBER AND NAME.	MARK.		Depth: Low Water Spring Tides.	NOTE.
	Description.	Position.		
26. Middle Island Buoy	Black buoy with black inverted frustum cage.	Off the northern elbow of the banks which lie to the northward of Middle and Blockhouse Islands, Blockhouse Beacon bearing S. $10\frac{1}{4}^{\circ}$ E., distant $6\frac{1}{2}$ miles.	Uncertain ...	6 feet diameter, $11\frac{1}{2}$ feet high to top of cage.
27. Ch'i-yao Bank Buoy.....	Red buoy with black spherical cage.	Off the south-eastern elbow of Ch'i-yao Bank (south-western shore of Drinkwater Point), Drinkwater Point Beacon bearing N. 31° E., distant 2 miles.	do. ...	do. do.
28. Drinkwater Point Buoy	Red and black horizontally striped fairway buoy, with black spherical cage.	In the North Channel	24 feet.....	10 feet diameter, 18 feet high to top of cage. Shaweishan Lighthouse bears N. 86° E., distant about 12 miles.
CHINKIANG.				
1. Silver Island Spit Buoy	Red and black vertically striped 6-foot conical buoy, surmounted by a black diamond-shaped cage.	On the end of spit, eastward of Silver Island.	Uncertain...	Vessels should not pass between this buoy and Silver Island.
HANKOW.				
1. W. C. de Vries Rock Temporary Spar Buoy.	Black spar buoy, surmounted by a red flag.	Nearly on rock, a little on the east side.	.....	Long white range pole at Chung-chih-kuan bears about E. $\frac{1}{4}$ S., distant about 700 yards. This buoy is maintained from about December to May, or when the river is below 19 feet (Hankow water gauge).
2. Huquang Rock Temporary Spar Buoy.	do. do.	Nearly on rock, a little on the south side.	.....	Long range pole (white, red, and black) at So-chia-chih bears about S. $\frac{1}{2}$ E., distant about 400 yards. This buoy is maintained from about December to May, or when the river is below 19 feet (Hankow water gauge).
3-9. Lee Rocks Spar Buoys		On various rocks, etc., Shi-hui-yao Reach.	.....	Seven (or more if necessary) spar buoys mark the Lee Rocks and others during low water, placed for the guidance of light-draught lighters and tugs bound to the wharf, Shi-hui-yao. Vessels bound up or down river should give the rocks a wide berth and keep as close as practicable to the mud bank on the left side of the river. Endeavour will be made to keep the outer buoy (the one nearest mid-channel) lighted during low water.

BUOYS—Continued.

DISTRICT NUMBER AND NAME.	MARK.		Depth: Low Water Spring Tides.	NOTE.
	Description.	Position.		
TIENTSIN.				
1. North Bank Spit Buoy*	Red iron nun buoy	On the south edge of the North Bank Spit.	6 feet.	
2. South Buoy*.....	Black iron nun buoy	On the south side of the chan- nel, to mark a bend.	6 do.	
3. Inner Buoy*.....	Red iron nun buoy	On the south edge of the north bank.	5 do.	
4. Fairway Buoy*.....	Iron egg buoy, horizontal black and red bands, sur- mounted by black tripod and cage.	Placed at the entrance to the channel across the bar.	6 do.	
NEWCHWANG.				
1. Entrance Buoy†	Black conical buoy, sur- mounted by a black frustum cage.	On the south-western extremity of the west bank and outer edge of the bar.	16 feet.	
2. Middle Buoy†.....	Black conical buoy, sur- mounted by a black dia- mond-shaped cage.	Inside the shoalest part of the bar, and marks the south- eastern extremity of the west bank.	8 do.	
3. Inner Buoy†.....	Red nun buoy, surmounted by a red spherical cage.	Marks the western edge of east bank and shows about the inside limit of the shoal water.	12 do.	

* During the winter months the four iron buoys in the Tientsin district are replaced by spar buoys, painted black.

† From about the 1st November until about the 10th April the three iron buoys in the Newchwang district are replaced by wooden spar buoys, of similar colours, surmounted by black cages fixed on bamboo perches.

BEACONS.

No.	NAME OF DISTRICT AND NAME OF MARK.	POSITION.	DESCRIPTION.	REMARKS.
CANTON.				
1, 2	Dutch Folly North Beacons.	On the rocks near Dutch Folly Island, north side of the channel.	Round granite beacons, 26 feet high, painted red, and surmounted by a lantern.	Two red lights.
3	Dutch Folly South Beacon.	On the rocks near Dutch Folly Island, south side of the channel.	A round stone and brick beacon, 22 feet high, painted black, and surmounted by a lantern.	Green light.
4	Taimel Beacon.....	On the end of sandspit making out from 49th Point, Marines Island, Blenheim Passage.	Spar beacon, 27 feet 6 inches high, surmounted by a square frame, and painted black, white, and black.	White light.
5-7	Taishek Barrier Beacons.	On the northern side of the Barrier, Blenheim Passage.	Three spar beacons, each 46 feet high, surmounted by a circular frame, and painted red, white, and red.	Two red lights hoisted to the east and west beacons.
SWATOW.				
8	Gochang Rock Beacon.	On the rock, Swatow Anchorage.	Black, granite beacon, 5 feet in diameter, 5 feet high, and carrying a 5 feet high pole surmounted by a black wicker basket.	The highest of these rocks is covered at high water. From the beacon Gochang Point bears S. 31° E., and is distant about 350 yards; Bottefurh's Rock bears N. 76° E.
AMOY.				
9	Alibi Rock Beacon...	On a rock a little to the N.E. of the northern end of Kulangsu.	Black, granite obelisk, 22 feet high above the rock.	The rock dries at low water.
10	Kangsintah Beacon.	These two beacons mark two reefs of rocks (extending out from Kulangsu) at points where they uncover at $\frac{1}{2}$ ebb.	Black, granite obelisk, 15 feet high above the rock on which it is built.	A rock, covered 14 $\frac{1}{2}$ feet at low water springs, lies N. by E. 40 yards from the southern of these two beacons (Chiotah); and S.E. by E. from the same beacon, distant about 100 yards, is a rocky patch, the centre and shallowest part of which has only 5 feet of water on it at low water springs. From the centre of this patch Alibi Rock Beacon is seen just open to the N.E. of the northern of these two beacons and in line with the west face of Monkey Island. The highest pinnacle of the Coker Rocks is in line with these two beacons, bearing from them about S. 34° E.
11	Chiotah Beacon		Black, granite obelisk, 17 feet high above the rock on which it is built.	
12-24	Harbour Marks.....	On rocks in the Inner Harbour. Three off the northern end of Kulangsu; six on the west side of the Inner Harbour; and four on the east side of the Inner Harbour.	13 perches, with round basket tops. The four on the eastern side of the Inner Harbour are painted red; the remaining nine black. The baskets on all the perches are painted white.	The first three mark the northern edges of reefs off the north end of Kulangsu. The next six are on rocks on the western side of the Inner Harbour. The last four are on the eastern side.

BEACONS—Continued.

No.	NAME OF DISTRICT AND NAME OF MARK.	POSITION.	DESCRIPTION.	REMARKS.
TAMSUI.				
25	Bush Island Beacon	On the extreme west end of Bush Island, Kelung Harbour.	Grating (crossed), 8 feet by 5 feet, mounted on a single spar 42 feet high. The grating is painted white, the spar is painted black.	Formerly a single grating; altered in August 1893 by having an additional grating put up at right angles to the old grating.
FOOCHOW.				
26	Oriental Rock Beacon.	On Oriental Rock, Kimpai Pass	Spar mounted with a cage, 4 feet square on the upper and 2 feet 6 inches on the lower part. Painted red, with the words "ORIENTAL ROCK" in white on the cage. Shows 14 feet above high water spring tides.	At high water spring tides the rock is covered 4 feet. Vessels must pass to the south of the beacon, and not nearer than 100 feet.
27	Half-tide Rock Beacon.	On the Half-tide Rock, near the upper end of Tongue Shoal.	Built of granite, painted black	The rock is submerged 5 feet at high water springs.
28	Pagoda Rock Beacon	On the rock in the Pagoda Anchorage.	Iron pile, surmounted by a cage painted red.	A red light is exhibited from sunset to sunrise. The rock is submerged 10 feet at high water springs.
29	Mamoi Rock Beacon	On Mamoi Rock	Pole with cage painted red	The rock is only covered at high water.
WENCHOW.				
30	Elephant Rock Beacon.	On a small pinnacle rock called "Hsiang-shih" (Elephant Rock), about 600 feet S.E. of the east end of Pagoda Island (Ku-hsü, vulgarly called Kiang-sin-sze), which is in the middle of the river opposite the north wall of the city.	The beacon consists of an iron mast 3 inches in diameter, painted red, on which is fixed a bamboo basket 6 feet in diameter, painted red, with a white horizontal band round the centre.	The top of the mast is 15 feet above high water springs. The centre of the basket is 9 feet 6 inches above high water springs. The rock is submerged 8 feet at high water springs.
31, 32	1st Crossing or Lower Anchorage Beacons.	On the right bank of the Ou River, about $1\frac{3}{4}$ miles to the westward of the Lower Anchorage Station.	1. A pole, 36 feet high, surmounted by a bamboo frame 6 feet square. 2. A pole, 26 feet high, surmounted by a pyramidal bamboo frame 6 feet high. The poles are painted in black and white horizontal stripes, and the bamboo frames half black and half white horizontally.	These beacons kept in line should indicate the best channel for crossing to the south-western point of Ch'i-tu-t'u (Big Island).
33, 34	2nd Crossing or Snipe Island Beacons.	On western end of Snipe Island	1. A pole, 36 feet high, surmounted by a bamboo frame 6 feet square. 2. A pole, 26 feet high, surmounted by a pyramidal bamboo frame 6 feet high. The poles are painted in red and white horizontal stripes, and the bamboo frames half red and half white horizontally.	These beacons kept in line should indicate the best channel (over the old 2nd and 3rd Crossings) to White Temple, on the north bank of the river.

BEACONS—*Continued.*

No.	NAME OF DISTRICT AND NAME OF MARK.	POSITION.	DESCRIPTION.	REMARKS.
35, 36	3rd Crossing or Chiang-t'u Beacons.	On the left (northern) bank of the Ou River, a short distance to the eastward of Chiang-t'u.	1. A pole, 36 feet high, sur- mounted by a bamboo frame 6 feet square. 2. A pole, 26 feet high, surmounted by a pyramidal bamboo frame 6 feet high. The poles are painted in red and white horizontal stripes, and the bamboo frames half red and half white hori- zontally.	These beacons kept in line should indicate the best channel between the northern bank of the river and the city.
	NINGPO.			
37	Alligator Beacon.....	On Alligator Point, a ledge of rocks extending 2 cables south from the extreme south- ern end of Kintang Island.	Stone beacon, painted red.....	Long-nose Point bears N. $56\frac{1}{4}^{\circ}$ W.; Just-in-the-way bears S. 87° E.
38	Blonde Rock Beacon	Blonde Rock, in the Kintang Channel.	Iron beacon, with cage, painted black.	Sanshan Islet bears S. 42° E.; Square Island, N. 65° W.; Beacon Hill in one with the citadel, S. 45° W. Rock awash at low water.
39	Tiger's Tail Beacon...	On a rock bearing N. 43° W. from the tower on Tiger Island; distant 210 yards.	Iron beacon, painted black, with a white cage.	Rock awash at half tide.
40	Nemesis Rock Bea- con.	On a ledge of rocks extending from the north-eastern point of Tayew Island.	Hard-wood spar, painted red, with an inverted frustum cage, painted white.	Erected by Chinese, but main- tained by the Customs.
	SHANGHAI.			
41	Clump Beacon.....	South side of southern entrance to the Yangtze River.	Quadrangular open-work struc- ture of wood, 50 feet high, and not painted.	Established for surveying pur- poses.
42	House Island Beacon	Near the south-western shore of House Island.	Quadrangular open-work struc- ture of wood, 50 feet high, and painted white.	do. do.
43	Kiutoan Beacon.....	South side of southern entrance to the Yangtze River.	do. do.	do. do.
44	Blockhouse Island Beacon.	Near the south-eastern end of Blockhouse Island.	do. do.	do. do.
45	Middle Island Bea- con.	Near the eastern end of Middle Island.	do. do.	do. do.
46	Drinkwater Point Beacon.	Near the south-eastern shore of Tsungming Island.	Quadrangular open-work struc- ture of wood, 50 feet high, and not painted.	do. do.
47, 48	Woosung Inner-Bar Marks: Feima Channel.	On the left bank of the Woo- sung River.	1. A low pole, with a pyramidal top, near the river bank. 2. A high pole, with a rect- angular top, farther inland.	These poles kept in line in- dicate the fairway course through the channel between the wreck of the <i>Feima</i> and the right bank of the river. A <i>white</i> light on the low pole and a <i>red</i> light on the high pole indicate the same channel by night.
49, 50	Woosung Inner-Bar Marks: Old Chan- nel.	On the right bank of the Woo- sung River.	do. do.	These poles kept in line lead across the bar in the depth of water which is signalled from the Customs station during daylight. A <i>red</i> light on the low pole and a <i>white</i> light on the high pole indicate the same channel by night.

BEACONS—Continued.

No.	NAME OF DISTRICT AND NAME OF MARK.	POSITION.	DESCRIPTION.	REMARKS.
51	KIUKIANG. Lay Island Beacon..	On the island, about 1 mile from the upper (west) end.	A spar beacon, 45 feet above high water, surmounted by a black ball, and painted black and white.	It marks the channel in crossing over from the south to the north bank during the low state of the river in winter.
52, 53	HANKOW. Chung-chih-kuan Range Poles.	On the rocky south shore, nearly abreast of W. C. de Vries Rock, Huquang Winter Channel, opposite Huquang Flats, Lo-ko-hi Reach.	These range poles are erected on pyramid-shaped stone beacons. 1. A high pole, surmounted by a black wicker ball. 2. A low pole, which is nearer to the channel, surmounted by a black ring. Both poles are painted white. The stone beacons are covered when the Hankow water gauge shows 19 feet 6 inches.	These poles kept in line lead clear of the Huquang Rock and give a nearly mid-channel course. They are placed in position in December, or when the river falls to 19 feet, and removed again early in May, or when the river is rising and the Hankow water gauge shows about 19 feet.
54, 55	So-chia-chih Range Poles.	On the south shore, opposite Huquang Rock, in the Huquang Winter Channel, abreast of Huquang Flats, Lo-ko-hi Reach.	1. A low pole, with a ring on top, near the river bank. 2. A high pole, with a black wicker ball on top, farther inland. Both poles are painted white, red, and black.	These poles kept in line lead clear of the W. C. de Vries Rock and give a nearly mid-channel course. The high pole remains during summer; the low pole is removed or placed in position at the same time as the Chung-chih-kuan range poles.
56	CHEFOO. Fairway Rock Beacon.	On the Fairway Rock, off the north-western point of Yentai Hill.	An iron rod, surmounted by a cage.	Rock dries at low water spring tides. Chefoo Peak, N. 4° W.; Sentry Rock, N. 38° E.; Chefoo Lighthouse, N. 85° E.
57	TIENTSIN. Wooden Beacon.....	On the north bank, at the mouth of the Peiho.	Pyramid shape, painted white.	
58, 59	South Bank Leading Marks up the Deep Hole.	On the south bank	Two poles with cages.	
60, 61	South Bank Marks	On the south bank, near the mouth of the Peiho.	do. do.	
62	South Bank Mark...	On the south bank of the Peiho, near the C. M. S. N. Co.'s godown.	A board painted one half black and one half white, erected on two poles.	
63	NEWCHWANG. East Spit Beacon*..	On the East Spit, a shoal extending south-westerly from the dry bank of the river.	Red spar, mounted with two red balls; 25 feet above high water.	It marks the western edge of East Spit, on the starboard side of channel. The Whale's Back Shoal, on the opposite side of the fairway, bears about S.W. by W. $\frac{1}{2}$ W. from this beacon.
64	Nodding Tommy Beacon.*†	On the east bank of the river, and 1 mile above East Spit Beacon.	Red spar, mounted with a red diamond-shaped box, which has a white band 1 foot wide painted round the middle of it. The spar is 25 feet above high water.	It marks the east bank of the river.
65	Middle Bank Beacon.*	On the east bank of the river, about $2\frac{1}{4}$ miles above Nodding Tommy Beacon.	Red spar, mounted with a red spherical cage, 25 feet above high water.	Middle Bank Shoal, on the opposite side of the channel, bears about S.W. by W. $\frac{3}{4}$ W. from this beacon.

* These three beacons are removed every year, in the latter part of November, on account of ice in the river, and replaced as soon as practicable on the opening of navigation.

† To the S. E. of Nodding Tommy and about 200 yards from it there is a beacon painted black, which is intended for survey purposes only.

BEACONS—*Continued.*

No.	NAME OF DISTRICT AND NAME OF MARK.	POSITION.	DESCRIPTION.	REMARKS.
66	Flagstaff Beacon....	On dry ground on the east bank of the river, and 7 cables N.E. from Middle Bank Beacon.	Spar, 50 feet high, mounted with two diamond-shaped boxes. The spar is painted red from the ground to the bottom of lower box, white from thence to the bottom of upper mark, and the remainder red.	
67	Fish House Beacon	On the west bank of the river, near high water mark, and a short distance from the bend that leads to the harbour.	Black spar, 40 feet high, mounted with a black diamond-shaped box.	It marks the channel in crossing over from the east to the west bank of the river.

A. M. BISBEE,

Coast Inspector.

By Order of the INSPECTOR GENERAL,

H. KOPSCH,

Statistical Secretary.

INSPECTORATE GENERAL OF CUSTOMS,

STATISTICAL DEPARTMENT,

SHANGHAI, *January 1894.*

APPENDIX I.

LIST OF FOREIGN LIGHTS STAFF.

(Corrected to 1st December 1893.)

No.	NAME.	Rank.	Date of first Appointment.	District or Section.
LIGHT-VESSELS.				
1	W. W. Orfeur	Captain	March 1880	Tientsin.
2	C. J. V. Hoerk	"	December 1890	Shanghai.
3	C. E. R. Handro	"	November 1882	Newchwang.
4	L. R. Sachs	"	July 1885	Shanghai.
5	C. H. A. Windhorst	First Mate	December 1890	"
6	O. R. F. Soderberg	" "	June 1892	"
7	C. Druwert	" "	November 1886	Tientsin.
8	A. Roberts	Second " (Actg.)	June 1892	Newchwang.
9	H. A. Thorkelsen *	" "	September 1887	Tientsin.
10	D. E. Christiansen	" " (Actg.)	November 1892	Newchwang.
11	T. J. Smith	" " "	" 1893	"
LIGHTHOUSES.				
LIGHTKEEPERS.				
12	J. Noble	Chief, A	June 1877	Amoy.
13	P. F. S. Wilnau	" "	November 1879	"
14	T. Cunningham	" "	June 1877	Shanghai.
15	C. W. Bond	" "	" "	"
16	J. Harp	" "	" "	Chefoo.
17	J. Eccles	" "	" "	"
18	D. Botelho	Chief, B	December 1861	Amoy.
19	C. May	" "	July 1880	"
20	P. J. J. Stellingwerff	" "	February 1877	"
21	G. T. Hansel	" "	October 1885	"
22	D. Wisas	" "	September 1875	Chefoo.
23	T. H. Blowey	" "	August 1892	"
24	C. G. Soelberg	Second, A	April 1881	Amoy.
25	J. Chapman	" "	June 1878	"
26	J. S. de Elizaga	" "	December "	"
27	J. Shields	" "	August 1881	"
28	A. Michel	" "	December 1874	Shanghai.
29	W. Knight	" "	February 1878	"

* And Lightkeeper.

APPENDIX I—Continued.

No.	NAME.	Rank.	Date of first Appointment.	District or Section.
30	C. A. Schwilp.....	Second, A	September 1886	Chefoo.
31	G. J. Nott	" "	August 1892	"
32	L. H. C. Klyhn	" "	January 1885	"
33	D. Fernandez	Second, B	June 1878	Amoy.
34	E. E. Ferrari	" "	April 1884	"
35	A. M. dos Santos	" "	March 1882	"
36	T. O'Driscoll.....	" "	January 1887	"
37	H. P. T. Möller.....	" "	November "	"
38	B. R. Bohn	" "	April 1889	"
39	A. F. C. Penzig	" "	May 1882	Shanghai.
40	J. Bluhm	" "	March 1885	"
41	J. Rodrigues.....	" "	August 1877	"
42	H. A. Atkinson.....	Third, A	" 1885	Amoy.
43	C. L. Christiansen.....	" "	December 1888	"
44	J. H. Buntzen	" "	" "	"
45	J. C. H. Schmüser.....	" "	August "	"
46	P. H. Niner.....	" "	" "	"
47	F. R. Schulz	" "	September 1887	Shanghai.
48	J. Wulf	" "	November 1889	"
49	P. E. Johnsen.....	" "	March 1885	Chefoo.
50	F. Dalton	" "	" 1887	"
51	J. C. Bruhn	Third, B	February 1890	Amoy.
52	H. J. Jacobsen	" "	" "	"
53	S. P. Swensson.....	" "	April 1893	"
54	W. Murray	" "	November 1892	"
55	C. Hansen [<i>on probation</i>].....	" "	May 1893	"
56	A. R. Bell "	" "	October "	"
57	N. Bernstein "	" "	" "	"
58	D. Ross.....	" "	May 1891	Shanghai.
59	A. Ross	" "	" 1892	"
60	W. Owens.....	" "	July "	"
61	C. Smith	" "	September "	"
62	W. Smith.....	" "	October "	"
63	J. Martin [<i>on probation</i>].....	" "	November 1893	"
64	A. E. Adams [<i>on probation</i>].....	" "	" "	"
65	J. Lewis	" "	January 1890	Chefoo.
66	W. Perry.....	" "	October "	"

APPENDIX II.

LIST OF CHINESE LIGHTS STAFF.

(Corrected to 1st December 1893.)

No.	NAME.		Rank.	Date of first Appointment.	District or Section.
	In English.	In Chinese.			
	LIGHTKEEPERS.				
1	Liang Kuang.....	梁 光	Fourth, C	April 1880	Canton.
2	Lao Shih-wu.....	勞 十 五	" "	October 1881	"
3	Lao Tê.....	勞 德	" "	" "	"
4	Ch'ên Chin.....	陳 金	" "	November "	"
5	Ho Kao.....	何 高	" "	September 1882	"
6	Liang Yu-chin.....	梁 有 進	" "	December 1883	"
7	Chang Wei.....	張 妮	" "	October 1888	"
8	Ch'ên Kên.....	陳 根	" "	August 1890	"
9	Li K'un.....	李 坤	" "	July 1891	"
10	Liang Chi.....	梁 濟	" "	" "	"
11	Chang Chin.....	張 金	" "	December "	"
12	Huang Jun.....	黃 潤	" "	January 1892	"
13	Ch'ên Fa.....	陳 發	" "	June "	"
14	Li Ping.....	李 炳	" "	March 1893	"
15	Lu Ch'ü-êrh.....	盧 初 二	" "	July "	"
16	Ch'ên Shu.....	陳 樹	" "	September 1892	"
17	Ho Wo.....	何 窩	" "	November "	"
18	Ch'ên Ch'iao.....	陳 橋	" "	October 1893	"
19	Huang Wei.....	黃 威	" "	March 1883	Amoy.
20	Ts'ao Hsi-ti.....	曹 細 弟	" "	June 1888	"
21	Hsü Hsi-mei.....	許 細 妹	" "	December 1879	"
22	Hsü Ch'ü-yang.....	許 曲 養	" "	July 1888	"
23	Chêng A-tê.....	鄭 阿 得	" "	November 1876	"

APPENDIX II—Continued.

No.	NAME.		Rank.	Date of first Appointment.	District or Section.
	In English.	In Chinese.			
24	Chuang A-k'un	莊阿坤	Fourth, C	November 1883	Amoy.
25	Hung Hua	洪華	" "	December 1880	"
26	Wang Shih-ti	王實弟	" "	April 1890	"
27	Lin Ch'iu	林求	" "	September 1871	"
28	Wang Neng	王能	" "	" 1886	"
29	Li Chi	李吉	" "	May 1862	"
30	Li Tun	李盾	" "	November 1878	"
31	Li Hsün	李蟬	" "	April 1883	"
32	Huang Chên	黃振	" "	November 1871	"
33	Chi Hsiang	紀响	" "	May 1881	"
34	Hsü A-chu	許阿朱	" "	February 1884	"
35	Hsü A-chui	許阿追	" "	November 1889	"
36	Li Ju	李如	" "	April 1881	"
37	Li T'ien-chiao	李天教	" "	January 1891	"
38	Wu A-yin	吳阿印	" "	July 1888	"
39	Chu Chiang	朱江	" "	August 1885	"
40	Chu Ch'ao-fu	朱朝富	" "	September 1888	"
41	Ch'êng Ch'ín	成欽	" "	February 1891	"
42	Lin Yu-lai	林有來	" "	May 1882	"
43	Hsü A-chiang	徐阿江	" "	April 1881	"
44	Chao Ch'un-piao	趙春標	" "	June 1882	"
45	Lin A-chu	林阿猪	" "	February "	"
46	Ch'ên I	陳義	" "	July 1884	"
47	Kuo Chung	郭忠	" "	August 1891	"
48	Li Lai	李來	" "	September 1877	"
49	Hsü Lai-shun	許來順	" "	June 1888	"
50	Lin Chung	林仲	" "	" 1890	"
51	Lin Yung-mi	林永密	" "	July 1891	"
52	Lin Yu-hsien	林有賢	" "	January 1892	"

APPENDIX II—Continued.

No.	NAME.		Rank.	Date of first Appointment.	District or Section.
	In English.	In Chinese.			
53	K'ò Fu	柯 福	Fourth, C	April 1893	Amoy.
54	Ch'ên Ping	陳 炳	" "	" "	"
55	Lu Ch'ing-ch'üan	盧 清 泉	" "	June 1886	Tainan.
56	Kuo Piao	郭 標	" "	November 1892	"
57	Huang Yu-lai	黃 友 來	" "	April 1888	Tamsui.
58	Kuo Mao-shêng	郭 茅 生	" "	November "	"
59	Lin T'ung	林 桶	" "	July 1886	"
60	P'an Lao-têng	潘 老 登	" "	May 1892	"
61	Ch'ên Ch'ang-yung	陳 昌 榮	" "	April 1864	Ningpo.
62	Ku Chi-chang	顧 寄 章	" "	September 1877	"
63	Shih A-hsüan	史 阿 煊	" "	January 1867	"
64	Hsü Ch'üan-chin	徐 全 金	" "	" 1892	"
65	Wu Ping-chiang	鄔 炳 江	" "	" 1875	"
66	Wang Chung-huai	王 中 懷	" "	August 1879	"
67	Hsieh Jên-kuei	謝 仁 貴	" "	June 1893	"
68	Ting A-t'ang	丁 阿 堂	" "	August 1870	Shanghai.
69	Yao Ting-kuei	姚 定 貴	" "	April 1880	"
70	Ling Hsiao-fang	陵 小 芳	" "	June 1869	"
71	Yang Shun-chung	楊 順 忠	" "	May 1873	"
72	P'an Lung-ch'üan	潘 龍 泉	" "	April 1878	"
73	Yang Jui-chi	楊 瑞 吉	" "	August 1883	"
74	Ts'ao A-pao	曹 阿 寶	" "	January "	"
75	Fu Chih-shou	傅 志 壽	" "	February 1877	"
76	Shên Ta-shêng	沈 大 生	" "	July 1883	"
77	Sung A-hsiao	宋 阿 小	" "	" 1876	"
78	Chao Kuei-yün	趙 貴 云	" "	January 1883	"
79	Ch'ên A-fang	陳 阿 方	" "	June 1864	"
80	Lu Yin-kuei	陸 銀 貴	" "	September 1880	"
81	Shên Yün-yao	沈 云 姚	" "	January 1884	"

APPENDIX II—Continued.

No.	NAME.		Rank.	Date of first Appointment.	District or Section.
	In English.	In Chinese.			
82	Fei Chin-pao.....	費金寶	Fourth, C	April 1881	Shanghai.
83	Lu K'un-jung.....	陸坤榮	" "	March "	"
84	Lo Ssü-yo	羅四岳	" "	July 1883	"
85	Lo Chung-hsiao	樂忠孝	" "	June 1888	"
86	Fei Kuei-hsien.....	費桂咸	" "	February 1885	"
87	T'an Wên-chi.....	譚文紀	" "	April 1892	"
88	Lo Hsiu-liang.....	樂秀涼	" "	" 1891	"
89	Wang Jên-chien.....	王仁謙	" "	September 1889	"
90	Ts'ui Tê-fu.....	崔德福	" "	April 1873	Chinkiang.
91	Yen Wei-ch'un.....	嚴維春	" "	December 1886	"
92	Lu Hêng-i.....	陸恒義	" "	" 1870	"
93	Hsü Hung.....	徐洪	" "	July 1878	"
94	Ts'ui Hêng-fa	崔恒發	" "	November 1881	"
95	Lu San-lang.....	陸三郎	" "	October 1892	"
96	Shao mei-ts'ai	邵美才	" "	November 1877	"
97	Shao Fu-shou	邵福壽	" "	October 1893	"
98	Chou Tê-shêng	周德盛	" "	June 1879	"
99	Ch'ên Hung-chün.....	陳宏鈞	" "	September 1890	"
100	Wang Fu-ch'üan	王福泉	" "	January 1880	"
101	Li Ts'ai-hsi	李才喜	" "	March 1893	"
102	Hsü Yu-kao	徐有告	" "	" 1874	"
103	Wu Chin	吳金	" "	October 1893	"
104	Hung Wan-i.....	洪萬億	" "	February 1866	"
105	Ku Yung-lin	顧永林	" "	June 1885	"
106	Ch'ên Yu-i.....	陳有義	" "	April 1875	"
107	Yü Tê-shui.....	虞德水	" "	August 1884	"
108	Hsü Yung-shêng.....	徐永生	" "	April 1881	"
109	Pu Liu-yüan.....	卜流源	" "	July 1878	"
110	Yang Tê-shun	楊德順	" "	June 1888	"

APPENDIX II—Continued.

No.	NAME.		Rank.	Date of first Appointment.	District or Section.
	In English.	In Chinese.			
111	Hsü Shao-ch'ên.....	許少臣	Fourth, C	July 1891	Chinkiang.
112	Wang Lung-hai.....	王龍海	" "	May 1876	Kiukiang.
113	Chu Mei-ch'üan	朱美全	" "	July 1891	"
114	Hsieh Yün-ch'üan	謝運全	" "	February "	"
115	Hsieh Shun-huai.....	謝順懷	" "	April "	"
116	Wan Ting-hsien.....	萬鼎先	" "	" 1872	"
117	Hsiung Shêng-hsien.....	熊盛先	" "	December 1891	"
118	Wang Ch'ing-fa.....	王慶發	" "	September 1884	"
119	Chang Liang-shan	張良善	" "	December 1885	"
120	Wan Yü-huai.....	萬裕淮	" "	" 1888	"
121	Wang Ch'üan-chün	王全金	" "	May 1887	"
122	I Sui-hai.....	易綏海	" "	April 1890	"
123	Ts'ai Tsêng-fa	蔡增發	" "	December 1873	"
124	Wan Shih-yu [on probation].....	萬時友	" "	September 1893	"
125	Wu Pên-hsin.....	吳本信	" "	June 1885	"
126	Chao Ta-chiu	趙達九	" "	" 1870	"
127	Kuei Ch'un-ying.....	桂春迎	" "	" 1876	"
128	Liang I-fang.....	梁儀芳	" "	November 1889	"
129	Chang Shu-k'un.....	張述坤	" "	October 1872	"
130	Hu Ta-chêng.....	胡大正	" "	May 1891	"
131	Wang Wu-shang	王伍尙	" "	November 1884	"
132	Wu Ch'ing-nien.....	吳慶年	" "	April 1889	"
133	Chang Ming-k'ai.....	張明楷	" "	July 1891	"
134	K'ung Hsien-i.....	孔憲義	" "	January 1877	"
135	Wu Hsiao-lin.....	吳學林	" "	April 1885	"
136	Huang Ho-jên.....	黃和人	" "	March 1892	"
137	K'o Ming-i.....	柯明義	" "	" 1885	"
138	Chou Tsung-huai.....	周宗淮	" "	July 1890	"
139	Wan Yü-ch'üan [on probation]	萬裕船	" "	September 1893	"

APPENDIX II—Continued.

No.	NAME.		Rank.	Date of first Appointment.	District or Section.
	In English.	In Chinese.			
140	Hsü Tsé-ming.....	徐澤明	Fourth, C	February 1891	Kiukiang.
141	Ch'êng Tè-p'êng	程得鵬	" "	November 1892	"
142	Wan Yü-ch'iu	萬裕秋	" "	February 1891	"
143	Li Hsün-lin	李訓林	" "	January 1884	"
144	Chang Nien-kuei	張年貴	" "	September 1888	Hankow.
145	Wang Ts'ai-shêng	王才生	" "	August 1893	"
146	Huang Hsien-ts'ai.....	黃賢才	" "	November 1892	"
147	T'ien Fang-chin	田方金	" "	July 1876	"
148	Liu Chung-lin	劉忠林	" "	April 1862	"
149	Liu Hsiao-ch'ing	劉學慶	" "	February 1879	"
150	Kao Hsing-ch'i.....	高興起	" "	December 1882	"
151	Liu Pi-ch'ang	劉必昌	" "	July 1869	"
152	Li Hsi-yüan	李喜元	" "	" 1883	"
153	Liu Chêng-ch'ien	劉正乾	" "	April 1879	"
154	Li Chêng-i.....	李正義	" "	September 1885	"
155	Kung Tso-ying	龔作英	" "	January 1882	"
156	Chang Lao-yao.....	張老么	" "	December 1873	"
157	Wang Ming-shan.....	王明善	" "	October 1883	"
158	Chang Nien-pao.....	張年寶	" "	" 1871	"
159	Chu Chêng-yu.....	朱正有	" "	February 1863	"
160	Kuo Yu-kuei	郭友貴	" "	April 1872	"
161	Huo Yü-ch'ing	霍裕慶	" "	November 1884	"
162	I Ming-yüan	易明元	" "	December 1885	"
163	Chiang Jên-k'uan.....	江人寬	" "	November 1891	"
164	Wang Ts'ai-kao.....	王才高	" "	" "	"
165	Ch'ih Ch'ing-ling	遲慶令	" "	August 1879	Chefoo.
166	Chou Ta-tê	周大德	" "	" 1887	"
167	Chi Ming-shui.....	紀明水	" "	" 1882	"
168	Ch'ü Shu-t'ien	曲書田	" "	" "	"

APPENDIX II—Continued.

No.	NAME.		Rank.	Date of first Appointment.	District or Section.
	In English.	In Chinese.			
169	Ting Wên-yüan	丁文元	Fourth, C	May 1871	Chefoo.
170	Lü K'o-hsiao	呂克學	" "	December 1885	"
171	Jên Ch'üan-kuei	任全桂	" "	April 1886	"
172	Chou Yung-chih.....	周永智	" "	August 1889	"
173	Ch'ê Ching-ch'un.....	車景春	" "	December 1883	"
174	Han Yung-hsi	韓永錫	" "	August 1891	"
175	Wang A-to *.....	王阿多	" "	June 1884	"
176	Mu Hsiang-ho *	慕香和	" "	September 1871	"
177	Chou Yung-hai.....	周永海	" "	November 1883	"
178	Chang Ch'ing-fu	張慶福	" "	March 1886	"
179	Sun Yü.....	孫玉	" "	May 1891	"
180	Wang Ching-yao.....	王景耀	" "	" 1892	"
181	Tsou Tien-ch'ên.....	鄒典臣	" "	October 1893	"
182	Kao Hua.....	高華	" "	April 1891	"
183	Ts'ung Ch'i-hsing.....	叢起興	" "	September 1893	"
184	Lin Wên-chih.....	林文知	" "	" "	"
185	Sun Kuei-shan.....	孫桂山	" "	May 1861	Tientsin.
186	Lu Chang-hsing.....	陸長興	" "	March 1887	"

* Engineer and Lightkeeper.

III.—MISCELLANEOUS SERIES.

No. 1.—THE TARIFF TABLES: First Issue	Published 1868.
„ 2.—TEN YEARS' STATISTICS	„ 1873.
„ 3.—VIENNA EXHIBITION CATALOGUE	„ 1873.
„ 4.—PHILADELPHIA EXHIBITION CATALOGUE	„ 1876.
„ 5.—PARIS EXHIBITION CATALOGUE	„ 1878.
„ 6.—LIST OF CHINESE LIGHTHOUSES, ETC.: Twenty-second Issue (First Issue, 1872)	„ 1894.
„ 7.—LIST OF CHINESE LIGHTHOUSES, ETC.: Chinese Version of the Twenty-second Issue (First Issue, 1877)	„ 1894.
„ 8.—GENERAL TARIFF LIST	„ 1879.
„ 9.—BERLIN FISHERY EXHIBITION CATALOGUE	„ 1880.
„ 10.—NAMES OF PLACES ON THE CHINA COAST AND THE YANGTZE RIVER: First Issue	„ 1882.
„ 11.—LONDON FISHERIES EXHIBITION CATALOGUE	„ 1883.
„ 12.—RULES REGARDING NOTARIAL ACTS TO BE PERFORMED BY COMMISSIONERS OF CUSTOMS, AND FORMS OF PROTEST: Second Issue (First Issue, 1882: Circular No. 187)	„ 1883.
„ 13.—LONDON HEALTH EXHIBITION CATALOGUE	„ 1884.
„ 14.—NEW ORLEANS EXPOSITION CATALOGUE	„ 1884.
„ 15.—ENGLISH-CHINESE GLOSSARY OF TECHNICAL ("LIGHTS," ETC.) EXPRESSIONS: First Issue	„ 1885.
„ 16.—CATALOGUE OF CUSTOMS PUBLICATIONS, WITH PRICES: First Issue	„ 1887.
„ 17.—LIST OF CHINESE MEDICINES	„ 1889.
„ 18.—THE TARIFF TABLES, 1885: Second Issue ..	„ 1889.
„ 19.—TREATIES, REGULATIONS, ETC., BETWEEN COREA AND OTHER POWERS, 1876-89	„ 1891.
„ 20.—TYPHOON ANCHORAGES	„ 1893.
„ 21.—CHART OF AMOY INNER HARBOUR	„ 1893.
